

U C S

University of California San Francisco

1993 • 1994 GENERAL CATALOG • *University of California San Francisco*

1993 • 1994

GENERAL

CATALOG

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Courses

This chapter is a compendium of the courses of instruction offered by the University of California, San Francisco. Additional courses are offered by the schools (see Addresses section) under their programs of Continuing Education. 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. 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.

Course Description. Course information is arranged in three paragraphs. The first paragraph includes course number, title, units (in parentheses), session offered, prerequisite, format and breakdown of hours per week. The second paragraph names the instructor(s) in charge. The third describes the course content, followed by department or other instructional unit.

Course Numbers. All courses are numbered according to the following system: 100 series = upper division professional course, 200 and 300 series = graduate academic course, and 400 series = postdoctoral professional course. The meaning of the second (tens) and third (units) digits varies among the schools. A detailed explanation of course numbering 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

EPID & BIOSTAT

Department of Epidemiology and Biostatistics, School of Medicine

FAM CM MED

Division of Family and Community Medicine, School of Medicine

FAM HLTH

Department of Family Health Care Nursing, School of Nursing

GR DEVEL

Department of Growth and Development, School of Dentistry

HIST HL SC

Department of History of Health Sciences, School of Medicine

LAB MED

Department of Laboratory Medicine, School of Medicine

MEDICINE

Department of Medicine, School of Medicine

MENT HLTH COM ADM

Department of Mental Health, Community, and Administrative Nursing, School of Nursing

MICROBIOL

Department of Microbiology and Immunology, School of Medicine

NEURO SURG

Department of Neurological Surgery, School of Medicine

NEUROLOGY

Department of Neurology, School of Medicine

OB GYN R S

Department of Obstetrics, Gynecology and Reproductive Sciences, School of Medicine

OPHTHALMOL

Department of Ophthalmology, School of Medicine

ORAL & MAX SURG

Department of Oral and Maxillofacial Surgery, School of Dentistry

ORTHO SURG

Department of Orthopaedic Surgery, School of Medicine

OTOLARYN

Department of Otolaryngology, School of Medicine

PATHOLOGY

Department of Pathology, School of Medicine

PEDIATRICS

Department of Pediatrics, School of Medicine

PHARM CHEM

Department of Pharmaceutical Chemistry, School of Pharmacy

PHARMACOL

Department of Pharmacology, School of Medicine

PHARMACY

Department of Pharmacy, School of Pharmacy

PHYSIOL NURS

Department of Physiological Nursing, School of Nursing

PHYSIOLOGY

Department of Physiology, School of Medicine

PSYCHIATRY

Department of Psychiatry, School of Medicine

RADIOLOGY

Department of Radiology, School of Medicine

RESTOR DENT

Department of Restorative Dentistry, School of Medicine

SOC BEH SC

Department of Social and Behavioral Sciences, School of Nursing

STOMATOL

Department of Stomatology, School of Dentistry

SURGERY

Department of Surgery, School of Medicine

UROLOGY

Department of Urology, School of Medicine

Hospitals

AB

Alta Bates-Herrick Hospital, Berkeley

AS

Atascadero State Hospital, Atascadero

BDC

Buchanan Dental Clinic

C

California Pacific Medical Center-California campus, San Francisco (formerly Children's Hospital)

CHMC

Children's Hospital Medical Center of Northern California, Oakland

CHS

Community Hospital, Santa Rosa

CM

Ernest V. Cowell Memorial Hospital, Berkeley

CSP

Center for Special Problems, San Francisco

DCH

Sutter Davis Hospital, Davis

DMC

Davies Medical Center, San Francisco

FCH

Fresno Community Hospital and Medical Center, Fresno

FR

Kaiser Foundation Hospital-French campus, San Francisco

GS

Good Samaritan Hospital of Santa Clara Valley, San Jose

H

Highland General Hospital, Oakland

K

Kaiser Foundation Hospital, San Francisco

KH

Kaiser Foundation Hospital, Honolulu

KHDV

Kaweah Delta District Hospital, Visalia

KP

Kaiser Foundation Hospital, Oakland

KSSF

Kaiser Foundation Hospital, South San Francisco

KWC

Kaiser Foundation Hospital, Walnut Creek

KS

Kaiser Foundation Hospital, Sacramento

L

Letterman Army Medical Center, San Francisco

LBL

Lawrence Berkeley Laboratory, Berkeley

LH

Laguna Honda Hospital and Rehabilitation Center, San Francisco

LPPI

Langley Porter Psychiatric Hospitals and Clinics, San Francisco

MC

Maricopa Medical Center, Phoenix

MG

Marin General Hospital, Greenbrae

MHLB

Memorial Medical Center, Long Beach

MZ

Mount Zion Medical Center of UCSF, San Francisco

NAT

Natividad Medical Center, Salinas

NRMC

Naval Hospital, Oakland

NS

Napa State Hospital, Napa

OC

O'Connor Hospital, San Jose

PH

Mills-Peninsula Hospitals, Burlingame

PMC

California Pacific Medical Center-Pacific campus, San Francisco

Q

Queen's Medical Center, Honolulu

RLA

LAC-Rancho Los Amigos Hospital, Downey

S

Stanford University Hospital, Stanford

SCC

Santa Clara Valley Medical Center, San Jose

SDH

Selma District Hospital, Selma

SFGH

San Francisco General Hospital Medical Center, San Francisco

SGH

Scenic General Hospital, Modesto

SH
Shriners Hospital for Crippled Children,
Honolulu

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 Developmental Center, Eldridge

SSF
Shriners Hospital for Crippled Children, San
Francisco

STA
St. Agnes' 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

SUM
Summit Medical Center, Oakland

SVH
Sierra Vista Hospital, Sacramento

T
Tripler Army Medical Center, Honolulu

UC
UCSF Medical Center, San Francisco (includes
Moffitt, Long, and Ambulatory Care Center)

UCD
University of California Davis Medical Center,
Sacramento

UCI
University of California Irvine Medical Center,
Orange

UCLA
University of California Los Angeles Medical
Center, Los Angeles

UCSD
University of California San Diego Medical
Center, San Diego

VA
Veterans Affairs Medical Center, San Francisco

VAF
Veterans Affairs Medical Center, Fresno

VAL
Veterans Affairs Medical Center, Livermore

VAM
Veterans Affairs Medical Center, Martinez

VAP
Veterans Affairs Medical Center, Phoenix

VAPA
Veterans Affairs Medical Center, Palo Alto

VASD
Veterans Affairs Medical Center, San Diego

VCF
Valley Children's Hospital, Fresno

VMC
Valley Medical Center of Fresno, Fresno

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) 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 by 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

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

117.01. Gross Anatomy & Embryology. (4) F.
Prerequisite: First-year dental standing. Lecture 5 hours. Lab 15 hours.

S. Fisher

The gross structure and developmental anatomy of the thorax and abdominal regions are studied by means of lectures, laboratory exercises, and demonstrations. The functional significance of the structures is emphasized. STOMATOL

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

S. 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. STOMATOL

118. General Histology. (4.5) § 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. STOMATOL

150.01. Gross & Regional Anatomy. (1.5/week) § Su, F, W, Sp. Prerequisite: Program must be approved by department and adviser during quarter previous to enrollment.

H. Patterson

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

156.01. Gross Anatomy & Embryology. (2.5) F.
Prerequisite: Dental Hygiene standing. Lecture 5 hours. Lab 4 hours.

S. Fisher

The gross structure and developmental anatomy of the thorax and abdominal regions are studied by means of lectures, laboratory exercises, and demonstrations. The functional significance of the structures is emphasized. STOMATOL

156.02. Head & Neck Anatomy. (3) F. Prerequisite: Dental Hygiene standing. Lecture 2 hours. Lab 3 hours.

S. 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. STOMATOL

170.01. Medical Scholars Program Workshops. (1) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour. Lab 1 hour.

Sutherland, Ralston

Workshops in anatomy and neuroanatomy, 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. ANATOMY

170.02. Survey of Congenital Defects. (2) Su or Sp. Prerequisite: Gross anatomy and consent of instructor. Restriction: Open only to students enrolled in Physical Therapy program. Lecture 2 hours. Offered in summer or spring of even-numbered years.

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

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. Radiation Effects on Genes & Chromosomes. (2) § W, Sp. 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

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

207. Neuromuscular Physiology. (3) § W. Prerequisite: Basic Human Neuroanatomy or consent of instructor. Lecture 3 hours.

Melnick

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

215. Laboratory Rotation. (4) § F,W, Sp. Prerequisite: Consent of instructor. Lab 12 hours.

Verb and Staff

A laboratory rotation course to familiarize new departmental graduate students with various approaches in research. ANATOMY

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. Offered 1993-94.

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. Not offered 1993-94.

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. Not offered 1993-94.

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. Not offered 1993-94.

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 housestaff 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—C, MZ. (1.5/week) Su, F,W, Sp. Prerequisite: Third-year standing. **Cauldwell**

The course consists of instruction and experience in operating room anesthesia including preoperative and postoperative evaluation and care. Cardiopulmonary resuscitation and care of the unconscious patient are stressed. ANESTHESIA

111. Advanced Cardiac Life Support (1) Sp. Prerequisite: Basic cardiac life support (BLS or CPR) and Anesthesia 110. Restriction: 4th year medical students, UCSF Lecture 8 hours. Workshop 12 hours.

Carlisle, Cassorla

American Heart Association certified training in advanced cardiac life support. Includes recertification in BLS if needed, airway management, invasive monitoring and therapeutic techniques, arrhythmia detection and management, cardiovascular pharmacology, acid-base balance, neonatal and pediatric resuscitation, and defibrillation. ANESTHESIA

140.01. Advanced Clinical Clerkship—UC. (1.5 per week) Su, F,W, Sp. Prerequisite: Anesthesia 110.

Cauldwell, Bogetz, Way

Clinical clerkship in operating room anesthesia. Two weeks in UCSF Surgery Center, focusing on basic anesthesia skills and anesthetic techniques for surgical outpatients of all ages. Two weeks in Moffitt-Long Operating Rooms, emphasizing anesthesia for subspecialty surgery. Scheduled through Anesthesia, ext. 63234. ANESTHESIA

140.02. Off-Campus Clerkship. (1.5 per week) § Su, F,W, Sp. Prerequisite: Anesthesia 110.

Cauldwell

Off-campus clinical clerkships in approved hospitals by special arrangement and approval of the Director of Medical Student Education, Department of Anesthesia. ANESTHESIA

140.03A. Intensive Care Clerkship—SFGH. (1.5 per week) Su, F,W, Sp. Prerequisite: Anesthesia 110, Medicine 110, and Surgery 110.

Schlobohm, Luce, Horn, Schapera

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. Advanced Clerkship in Intensive Care—UC. (1.5 per week) Su, F,W, Sp. Prerequisite: Anesthesia 110, Medicine 110, Surgery 110 and consent of instructor.

Cohen

Diagnostic and therapeutic mechanisms of caring for critically ill patients in adult medical-surgical ICU with emphasis on understanding respiratory, cardiovascular, cerebral and renal pathophysiology in pa-

tients with multisystem failure. Student will learn indications for and use of invasive and noninvasive monitors. ANESTHESIA

140.06. Pain Management. (1.5 per week) Su, F,W, Sp. Prerequisite: Anesthesia 110.

Drasner, McKay

The student will learn diagnosis and treatment of acute and chronic pain. Rotation includes the Postoperative Pain Service (managing epidural infusions and PCA) and the Multidisciplinary Pain Center (managing all aspects of chronic pain, including diagnostic and therapeutic nerve blocks). ANESTHESIA

150.01. Research in Anesthesia. (1.5 per week) Su, F,W, Sp. Prerequisite: Anesthesia 110. Consent of the Dean and Department of Anesthesia.

Staff

Students conduct research projects under guidance of faculty member. 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 Life Support. (0.5) F,W, Sp. Restriction: 1st year medical students only. Lecture 1 hour. Lab 3 hours.

Cohen, Cahalan, Strong

Course trains students in professional rescuer life support skills: cardiac compression and ventilation, management of airway obstruction, and assessment of need to initiate or terminate CPR. Successful completion of this course results in AHA or ARC certification in CPR. ANESTHESIA

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

Miller and Staff

Course covers the systemic effects of the various muscle relaxants, sedatives, 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. (1.5 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. (1.5 per week) Su, F, W, Sp. Elective for residents during either second or third year.

UC Gregory, Calahan

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

470. Molecular Biology Techniques for Anesthesia Research. (0) Sp. Restriction: For staff, fellows, and research assistants in Department of Anesthesia only. Lab: 16 hours.

UC Yost, Forsayeth

Practical beginning laboratory course in molecular biology techniques. Participants will be instructed in current techniques employing plasmids, restriction endonucleases, and microbiological methods for the amplification and manipulation of cloned DNA. ANESTHESIA

Animal Science

166. Introduction to Laboratory Animal Science. (3) Sp. Prerequisite: Course in general biology or consent of instructor. Lecture 2 hours. Lab 3 hours.

Hoener

This course will consist of lectures and laboratories on the proper use of laboratory animals in a research environment. Topics will include the ethical/humane use of laboratory animals, selection of biomedical models, zoonotic diseases, general principles of anesthetics, analgesics, aseptic surgery, and humane methods of euthanasia. PHARMACY

Anthropology

The courses listed below are offered through the Department of Epidemiology and Biostatistics.

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 & BIOSTAT

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.

Barker, Justice and Staff

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 & BIOSTAT

206A-B. Intro to Biocultural 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.

Beyene, Staff

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

211A-B-C. Research Training Seminar. (4, 6-8, 6-8) § F, W, Sp. Prerequisite: Required for and open only to second-year students in the intercampus Ph.D. Program in Medical Anthropology. Lecture 1 hour F, Sp. Seminar 1 hour F, Sp, 2 hours W. Field work 5-7 hours F, 12-18 hours W, Sp.

Ablon, Mitteness and Staff

Fundamentals of anthropological research design, methods, and analysis through lectures, readings and field assignments. EPID & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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

Mitteness

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

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 & BIOSTAT

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.

Lane

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 & BIOSTAT

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

Ablon

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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

Staff

Course examines principles of healing systems in the treatment of mental disorder including folk healing, cross-cultural comparisons, research methods, and implications for community psychiatry. Students study local examples of folk healers or folk healing institutions. EPID & BIOSTAT

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

Kiefer

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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 examined, emphasizing changing family forms and ways family life style and values contribute to modes of coping with stress, illness, and crises. EPID & BIOSTAT

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

Kayser-Jones

Course covers developmental theory and research in aging. Emphasis is on anthropological, sociological, and psychological studies. Current issues in aging with emphasis on implications for health care are discussed. EPID & BIostat

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

Beyene

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 & BIostat

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 & BIostat

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 & BIostat

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

Staff

Independent study. EPID & BIostat

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

Staff

EPID & BIostat

251. Social Gerontology. (2-4) § W or Sp. Pre-
requisite: 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 & BIostat

252. Culture & Health Policy. (3) § F,W, Sp. Semi-
nar 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 & BIostat

253. Late Life Family. (3) § F,W, Sp. Prerequisite:
Consent of instructor. Seminar 3 hours.

C. Johnson, L. Troll

A review of research on the late-life family with a critical analysis of the conceptual and methodological issues guiding research. Interpretations of the care-giving and social support literature will be associated with social, cultural, and psychological theories on the family. EPID & BIostat

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

Lane and Staff

Individual or small group directed reading and discus-
sion of epidemiological and medical ecological perspec-
tives, methods, and findings relevant to the field of
medical anthropology. EPID & BIostat

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

Staff

Independent study. EPID & BIostat

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

Staff

For graduate students engaged in writing the disserta-
tion for the Ph.D. degree. EPID & BIostat

Biochemistry

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

Colby, Musci

Lectures and conferences in the metabolism of carbohy-
drates, lipids, amino acids, and nucleotides, with em-
phasis 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 physiol-
ogy 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: Human
Metabolism.** (4-4) § F,W. Lecture 4 hours.

Colby

Lectures in biochemistry, including aspects of cell and
molecular biology, cell physiology, and human metabo-
lism. BIOCHEM

150.01. Research in Biochemistry. (1.5 per week) F,
W, Sp. Prerequisite: Consent of instructor.

Staff

Research in biochemistry. BIOCHEM

170.01. Molecular Biology of Cancer. (2) W. Semi-
nar 2 hours. Project 2 hours. Library research 1 hour.

Colby

Seminar on molecular and cell biological approaches to
disease processes. BIOCHEM

170.02. Medical Scholars Program Workshops.

(1) F,W. Prerequisite: First-year standing. Seminar 2
hours.

Colby

Workshops in cell and tissue biology (F) and human
metabolism (W) will present challenging material in
the form of weekly problem sets which students will
solve in groups. The material presented augments re-
quired coursework with basic science and clinical in-
formation. BIOCHEM

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

Colby

Library research and directed reading under supervi-
sion 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. Pre-
requisite: Consent of instructor.

Staff

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

200A. Structure of Macromolecules. (3) § W. Pre-
requisite: Calculus, physical chemistry, organic chemis-
try, and an advanced course in biology. Lecture 3 hours.

Fletcherick and Staff

Fundamental principles governing the behavior of, and
modern techniques for, study of biological macro-
molecules. Topics covered are: thermodynamics (en-
tropy, 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

200C. Chromosome Structure & Function. (1.5)
§ Sp. Prerequisite: Calculus, physical chemistry, organic
chemistry, and an advanced course in biology are rec-
ommended. Lecture 3 hours for one-half quarter.

Sedat

Structure and function of chromosomes in eukaryotes
will be discussed in depth, beginning with basic under-
lying experiments and leading to the most recent pro-
posals for structure. Emphasizes both theoretical and
experimental approaches to this area of cell and mo-
lecular 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 alter-
nate years. Not offered 1993-94.

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 interac-

tions. Techniques of investigating enzyme mecha-
nisms and kinetics. BIOCHEM

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

Yamamoto

The discovery of principles forming the foundation of
molecular biology and recent advances in rapidly
developing areas of the field. Topics covered are: RNA
transcription, protein translation, DNA replication,
control mechanisms, and genome structure and orga-
nization. BIOCHEM

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

Staff

Discussion of selected areas in biochemistry, biophys-
ics, and biomathematics. BIOCHEM

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

C. Guthrie

A laboratory rotation course to familiarize new de-
partmental 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

242. Protein Crystallography. (3) § W. Prerequi-
site: Consent of instructor. Lecture 2 hours. Lab 3
hours. Offered in alternate years. Not offered 1993-94.

Stroud

Principles of X-ray crystallography applicable to pro-
tein 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.

T. Kornberg, 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

BIOCHEM

297. Special Study. (1-3) § F,W, Sp.

Staff

Reading and conferences for properly qualified stu-
dents under the direction of a member of the staff.
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

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.

Langridge

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, Bhatnagar

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.

230A. Physics of Medical X-ray Imaging. (3) § F. Prerequisite: Baccalaureate degree in engineering or a physical science, differential equations, Fourier analysis, or consent of instructor. Lecture 3 hours.

Hasegawa, Cann, Gould

Basic interactions of photons and particles with matter; detectors and detector electronics; radiation quantity and quality, contrast, spatial resolution, noise, and image perception; radiation protection.

230B. Physics of Medical X-ray Imaging. (3) § W. Prerequisite: First quarter course in Physics of Medical X-ray Imaging or equivalent, or consent of instructor.

Hasegawa, Cann, Gould

X-ray production, x-ray scatter and scatter production, video imaging, image intensifiers, linear tomography, computed tomography, xeroradiography, digital subtraction angiography, photostimulable phosphor technology, dual-energy imaging techniques, bone-mineral densitometry, and quantitation of vascular flow.

240. Principles of Nuclear Magnetic Resonance Imaging. (3) § Sp. Prerequisite: Baccalaureate degree in engineering or a physical science; knowledge of Fourier analysis, electromagnetic waves and radiation; or permission of instructor. Lecture 3 hours.

Hylton, Carlson, Crooks, Ortendahl, Kaufman

Fundamentals of nuclear magnetic resonance and magnetic resonance imaging; parameterization of image acquisition, image optimization, and display. Emphasis on Fourier imaging methods and instrumentation.

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 1.5 hours. Lab 1.5 hours.

Litt

Important clinical issues relevant to bioengineering will be reviewed to help students appreciate the potentials and pitfalls of contemporary technologies. Students will contact scientists, physicians, nurses, technicians, and patients to identify important medical issues that require advanced bioengineering support.

297. Special Study. (1-8) § F,W, Sp.

Staff

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

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.

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.

Biomathematics

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.

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.

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.

Biophysics

The Graduate Group in Biophysics is an interdisciplinary group offering a Ph.D. in Biophysics. For details, refer to the *Graduate Studies* bulletin.

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

Staff

Full-time graduate study in the biophysics program through the intercampus 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.

205. Mammalian Genomic Rearrangement. (1.5) § Sp. Lecture 1.5 hours.

Morgan, Murnane

This course will focus on the mechanisms of recombination, specific DNA rearrangements and how they are manifested cytogenetically, factors influencing the rate of DNA rearrangements, and the consequences of DNA rearrangements in mammalian cells.

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.

Fike, Morgan

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 and tissue.

212. Advanced Topics in Radiation Biophysics. (3) § W. Prerequisite: Biophysics 210 or consent of instructor. Lecture 3 hours.

Deen

Current topics in radiation physics, radiation chemistry, and radiation biology. Lecturers will be mainly scientists from the Bay Area with ongoing research programs. Lecturers will assume student familiarity with information covered in Biophysics 210.

215. Laboratory Rotation. (3) § 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. (1) § F,W, Sp. Lecture 1.5 hours 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

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

Staff

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

The courses listed below are offered through the Department of Epidemiology and Biostatistics.

171. Intro Linear Algebra. (3) § W. Prerequisite: One year of college-level mathematics. Lecture 3 hours. Offered in alternate years: Offered 1993-94.

Beal

Course covers linear equations, matrices, vector spaces, linear transformations, determinants, eigenvalues and eigenvectors. Understanding of the contents of theorems will be emphasized. Course provides a general background for linear algebra, linear statistical, or applied linear mathematical methods. EPID & BIOSTAT

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

Glantz, Hoffman

Course stresses application of methods, including analysis of variance, simple linear regression, chi-square, and non-parametric. Intended for those who may need to use statistics in their work. EPID & BIOSTAT

185A. Intro Probability & Statistics. (4) § F. Prerequisite: Working knowledge of algebra. Lecture 3 hours. Lab 2 hours. Offered in alternate years: Not offered 1993-94.

Chambers

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, sampling, estimation, confidence intervals, and hypothesis testing, primarily concerning population means. EPID & BIOSTAT

185B. Intro Probability & Statistics. (4) § W. Prerequisite: Biostatistics 185A. Lecture 3 hours. Lab 2 hours. Offered in alternate years: Not offered 1993-94.

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 & BIOSTAT

187. Intro Stat Theory & Practice. (5) § Sp. 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 & BIOSTAT

191. Clinical Trials & Life Tables. (3) § Sp. Prerequisite: Biostatistics 183 or equivalent or permission of the instructor. Lecture 3 hours. Offered in alternate years: Not offered 1993-94.

Hauck, Hilton

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 & BIOSTAT

192. Introduction to Linear Models. (5) § Sp. Prerequisite: Biostatistics 183 or 185 A/B or 187 or equivalent or permission of instructor. Lecture 3 hours. Lab 2 hours.

Paul

This course begins with bivariate correlation and simple linear regression and then moves on to a presentation of multiple regression techniques and the analysis of variance under the general model. The focus is on the choice of technique and interpretation of results rather than on mathematical development of the methods. EPID & BIOSTAT

193. Categorical Data Analysis. (3) § W. Prerequisite: Biostatistics 185 A and B, Biostatistics 187 or consent of instructor. Lecture 3 hours.

Hilton

This course focuses on analysis of studies in which summary statistics are rates and proportions. Topics include testing and estimation of measures of association, including methods for matched and stratified data, and sample size and power calculation. Both exact and asymptotic methods are presented. Multivariate methods (log linear and logit models) are introduced. EPID & BIOSTAT

197. 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 nonparametric methods, regression, and analysis of variance, and analysis of discrete data. EPID & BIOSTAT

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. EPID & BIOSTAT

205. Multi Methods for Discrete Data. (3) § Sp. Prerequisite: Biostatistics 185A-B or Biostatistics 187 or permission of instructor; familiarity with chi-

square tests and linear regression. Lecture 2 hours. Lab 3 hours. Offered in alternate years: Offered 1993-94.

Neuhaus, Hauck

Course covers multivariate methods for analysis of discrete data. The major topics will be logistic regression and log-linear analysis. Other topics such as models for ordinal data will be covered given sufficient time and interest. Emphasis will be on appropriate use of methods and interpretation of results. EPID & BIOSTAT

211. Experimental Design. (3) § W. Prerequisite: Biostatistics 192 or 210A or equivalent. Lecture 2 hours. Lab 3 hours. Offered in alternate years: Not offered 1993-94.

Hauck

This course will cover "classical" experimental designs and their statistical analyses. Designs to be covered will include completely randomized, full and partial factorial, randomized block and crossover designs, nesting and random effects. Statistical methods will include ANOVA and confidence intervals. EPID & BIOSTAT

213. Multivariate Methods. (4) § W. Prerequisite: Biostatistics 210A and 210B or equivalent. Lecture 3 hours. Lab 3 hours. Offered in alternate years: Offered 1993-94.

Segal

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 & BIOSTAT

216. Analysis of Repeated Measures. (4) § Sp. Prerequisite: Biostatistics 192 or 210A and 210B or equivalent. Lecture 3 hours. Lab 3 hours.

Neuhaus, Segal

This course will cover statistical methods for analyzing repeated measurement data. Methods to be presented include the classical ANOVA and MANOVA approaches, likelihood approaches using structured covariance methods and semi-parametric approaches. The course will focus on methods for unbalanced data. EPID & BIOSTAT

225. Selected Topics. (2-4) § F,W,Sp. Lecture 2-4 hours. Lab 0-3 hours.

Staff

Course will cover topics such as statistical methods for failure time data, time series, or repeated measures. EPID & BIOSTAT

250. Research. (1-8) § F,W,Sp.

Staff

EPID & BIOSTAT

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 & BIOSTAT

Cell Biology

210. Selected Topics in Cell Biology. (2) § F,W,Sp. Prerequisite: Cell Biology 245. Lecture 2 hours.

Staff

Selected topics in cell biology will be discussed: a tutorial format, with student presentation of papers. The goals are an in-depth study of one area of cell biology, and critical reading of the scientific literature. BIOCHEM

212. Selected Readings in Cell Biology. (2) § F. Prerequisite: Previous or concurrent enrollment in Cell Biology 245, and consent of instructor.

Vale

Tutorials with a maximum of eight students per class. Each week all students will read one paper and be individually responsible for another paper or group of papers. The papers will address current issues in cell biology. 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) § F. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology are highly desirable. Lecture 3 hours.

Julius, Morgan

Modern aspects of the molecular basis of cell function are examined with emphasis on how cells move, secrete, divide, and communicate with each other. BIOCHEM

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

Staff

Topics in Cell Biology will be discussed: a tutorial format, with student presentation of papers. The goals are an in-depth study of one area of cell biology, and critical reading of the scientific literature. BIOCHEM

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

Staff

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. CELL BIOLOGY

Chemistry

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, Shafer

Elementary physical chemistry with emphasis on thermodynamics. PHARM CHEM

116. Physical Chemistry. (2) W Prerequisite: Chemistry 115 or equivalent. Lecture 1.5 hours. Conference and demonstration 1.5 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.

Kahl

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.

Kahl

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

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

Staff

Group studies in selected topics in 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

202. Advanced Organic Chemistry. (4) § F Prerequisite: Consent of instructor. Lecture 4 hours.

Scanlan

The study of organic chemical reactions and functional group reactivities with an emphasis on reaction mechanisms. PHARM CHEM

205. Advances in Synthetic Methods. (2) § F 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

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. Chemical Kinetics. (1) § F Prerequisite: Chemistry 115 and 116 or consent of instructor. Lecture 3 hours for 3.5 weeks.

Falick, Shetlar

Chemical Kinetics for graduate students. 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.

Shafer

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

264. Advanced Statistical Mechanics & Molecular Mechanics. (2) § Sp. Prerequisite: Chemistry 260 or consent of instructor. Lecture 2 hours.

Dill

Advanced aspects of statistical mechanics and molecular mechanics; topics covered vary from year to year. PHARM CHEM

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

120. Introduction to Therapeutics. (3) Sp. Prerequisite: Successful completion of all required first- and

fall and winter second-year courses or consent of instructor. Lecture 3 hours.

Flaherty

Introduction to clinical pharmacy and therapeutics, focusing on the interpretation of laboratory and other clinical data regarding hematology, fluid and electrolyte balance, renal and hepatic function. An emphasis is placed on problem solving and integration of previous course work. 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, Wong

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.

Aldredge, Salazar

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, Bolinger

Continuation of Clinical Pharmacy 131. CL PHARM

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

Rodondi

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, Heard

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. (1.5) F,W, Sp. Prerequisite: Third-year standing. Concurrent or subsequent enrollment in Clinical Pharmacy 130, 131 or 132.

Schroeder

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. (0.5) F,W, Sp. Prerequisite: Clinical Pharmacy 135A.

Schroeder

Continuation of Clinical Pharmacy 135A. CL PHARM

148A. Inpatient Clinical Clerkship. (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 6 weeks.

Kayser 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) F,W, Sp. Prerequisite: Clinical Pharmacy 148A. Clinic 40 hours per week for 6 weeks.

Kayser 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 6 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 6 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) 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) 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/Clerkship—UCI & MHLB. (6.5) 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/Clerkship—UCI & MHLB. (6.5) F,W, Sp. Prerequisite: Clinical Pharmacy 149.02A.

Shimomura and Staff

Continuation of Clinical Pharmacy 149.02A. CL PHARM

149.03A. Ambulatory Externship/Clerkship—UCD. (6.5) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required courses and the comprehensive examination. Clinic 39 hours per week for 6 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

149.03B. Ambulatory Externship/Clerkship—UCD. (6.5) F,W, Sp. Prerequisite: Clinical Pharmacy 149.03A. Clinic 39 hours per week for 6 weeks.

Sauer and Staff

A continuation of Clinical Pharmacy 149.03A. 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 Admin—MHLB. (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

170.02. Transplant Immunotherapeutics. (2) Sp. Lecture 2 hours.

Hebert, Salazar, Aweeka

This course will introduce students to the specialty area of transplant immunotherapeutics. Students will be able to understand the rejection process and graft vs. host reactions. This course will also review the pharmacological and toxicological effects of immunosuppressant agents. CL PHARM

170.04. Advanced Compounding Techniques—Walnut Creek. (1-2) Su, F,W, Sp. Lab 3-6 hours. Prerequisite: Pharmacy 116. Consent of instructor. Enrollment limited to two students.

Day, Horwitz

Advanced Compounding Techniques in a community pharmacy (including formulation and packaging) in Walnut Creek. CL PHARM

170.05. Issues Facing Women in Pharmacy. (1) Sp. Lecture/seminar (one Saturday and one weekday evening) 10 hours total.

Kimble, Sauer

Through lecture and discussion, issues facing women in pharmacy will be explored. Specific topics to be addressed include career planning and management; balancing career and personal life; job vs. career commitment; alternative work-time options; mentorship; and issues related to increasing numbers of women entering the profession. Successful female role models will be invited to share experiences and perspectives, providing additional discussion topics. CL PHARM

170.07. Addictionology & Substance Abuse Prevention. (1-2) W. Lecture 1 hour. Three community presentations (optional).

Kimble, Kopp, Inaba

A survey course that addresses the physical and mental effects of drug abuse; intervention and treatment strategies; legal and ethical issues surrounding drug abuse; and substance abuse among health care professionals. 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. (1.5) 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.

Aweeka

Students participate in the activities of the Renal Medicine Service, including 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) Su, F,W, Sp. Prerequisite: grade of C or better in both Clinical Pharmacy 132 and Pharmacology 134 and 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) 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) F,W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter

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) F,W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Bufalini

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) 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 housestaff, and participation in conferences, seminars and rounds. Special projects assigned. CL PHARM

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

Kapusnik-Uner

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

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

Winter, Olson, Kearney

In an interdisciplinary setting, students 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

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) 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) 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

175.60. 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

175.64. Haight Heroin Detox Unit Clerkship. (1-8) 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 Clerkship. (1-8) F,W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter

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) F,W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Katcher, Zola

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

Winter, Nico, Feldman

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

175.80. 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) 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) 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) 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.

Schroeder

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

175.93. Cost Control & Qlty Assurance. (1-8) 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) 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 patients' 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 Consulting—Sacramento. (1-8) Su, F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Sauer, Menet

The student will participate in the activities of a clinical pharmacist practicing as a consultant to skilled nursing facilities. Student will learn applicable federal and state regulations in the long-term care setting. Activities include performing drug regimen reviews. CL PHARM

185.05. Oncology—UC. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Ignoffo

Students attend work rounds, housestaff 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; hyperalbuminemia; treatment of hypercalcemia and infections. Project. CL PHARM

185.06. Cardiothoracic Surgery—UC. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Salazar

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

185.08. Psychiatric Pharmacy—LPPI. (1-8) F,W, Sp. Prerequisite: Successful completion of all required first-, second-, and third-year coursework and consent of instructor. Clinic 20-40 hours/week. Clerkship 20-40 hours/week.

Winter, Ajari

The clerkship will expose students to pharmacy practice in a psychiatric setting. The students will attend team meetings and seminars and counsel patients about their medications. A written project and a presentation in the field of psychopharmacology are required. CL PHARM

185.09. Cardiology—UC. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Completion of all required first-, second-, and third-year coursework and consent of instructor.

Kayser

Inpatient rotation in adult cardiology. Patient activities include rounding with the cardiology team and electrophysiology team, monitoring patients on cardiovascular medications, interviewing appropriate patients, and attending conferences and seminars dealing with cardiology. Patients will be presented to the pharmacy preceptor during regularly scheduled rounds. CL PHARM

185.10. Infectious Diseases—MZ. (1-8) F,W, Sp. Prerequisite: Completion of all required first-, second-, and third-year coursework and consent of instructor.

Flaherty

Students participate in the activities of the Infectious Diseases service, including patient monitoring and attendance at conferences and seminars. Students work under the supervision of the clinical pharmacist and physicians in providing care to all patients who require consultation. CL PHARM

185.11. General Medicine—MZ. (1-8) F,W, Sp. Prerequisite: Completion of all required first-, second-, and third-year coursework and consent of instructor.

Winter, Cashman

Students learn the basic principles of therapeutics related to the disease states encountered in medicine patients in an inpatient setting. Participation in ward and attending rounds with the Department of Medicine Housestaff. Preceptorship by a clinical pharmacist. CL PHARM

185.20. Mental Health—Santa Clara. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Viale, Uyeda

Students will be involved in both inpatient and outpatient pharmacy settings. They will participate in physician-client interviews, medication monitoring, quality assurance studies, drug therapy consultation, and will also consult at a skilled nursing facility. CL PHARM

185.21. Clinical Pharmacokinetics—VAM. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Boro

The Clinical Pharmacokinetics elective will expose pharmacy students to the application of pharmacokinetics principles in the clinical setting. The students

will provide pharmacokinetics consultations to pharmacy, medical, surgical, and nursing staff. CL PHARM

185.23. Infectious Disease—VA. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Maddix

Activities include monitoring the drug therapy of Infectious Diseases consult patients and serving as a drug information source for the I.D. Service. Students attend and participate in I.D. rounds and attend relevant I.D. and microbiology conferences. CL PHARM

185.24. Oncology—Bone Marrow Transplant.

(1-8) F,W, Sp. Prerequisite: Fourth-year standing (CP 130, 131, 132).

Winter, Warda

This rotation will enable students to participate in the acute management of patients on an oncology/bone marrow transplant unit in a community hospital. This includes involvement with daily team rounds, chemotherapy preparation, TPN ordering, antibiotic management, and hospice interdisciplinary conferences. CL PHARM

185.25. Infectious Disease—Brookside Hospital. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Closson

The fourth-year student will participate in clinical services of the Department of Pharmacy relative to Infectious Disease. The service includes a computer program that links bacteriology reports with current antibiotic therapy. CL PHARM

185.26. Critical Care Medicine—SFGH. (1-8) SS1, SS2, Su, F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Woods, Liu

Students will be active participants in Medical/Surgical (trauma) ICU patient care. Activities include patient monitoring, rounds, seminars, and conferences and provision of patient-specific drug information and analysis. CL PHARM

185.27. AIDS/Medicine Consult Service—SFGH. (1-8) SS1, SS2, Su, F,W, Sp. Prerequisite: Completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Lor, Woods

Students will participate in the AIDS Consult Service including patient monitoring, providing consultation on drug therapy commonly used in treatment of AIDS patients. CL PHARM

185.30. Geriatrics—VA Yountville. (4-8) SS1, SS2, Su, F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

M. Winter, Carr-Lopez

Students participate in screening of patients over 70 years of age, biweekly multidisciplinary geriatric team

conferences, attending rounds, and weekly geriatric outpatient clinic. Most common problems relate to polypharmacy, poor nutrition, chronic diseases, depression, syncope, dementia, and pneumonia. CL PHARM

185.31. Critical Care Medicine—PMC. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required course-work and the Comprehensive Exam, and consent of instructor.

M. Winter, Lee, Louie

Students will participate in patient monitoring, teaching rounds, conferences, provision of drug information, inservice education, and the clinical management of selected critical care patients. CL PHARM

185.32. Nutritional Support—PMC (1-8) F,W, Sp. Prerequisite: Completion of all first-, second- and third-year required coursework and consent of instructor.

M. Winter, Lee, Whittle

Student participation in the activities of the nutritional support team includes daily patient monitoring, weekly nutritional support work rounds and daily teaching conferences. Two weeks will be devoted to pediatric TPN as well as some exposure to TPN compounding. 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 coursework 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

185.35. Psychiatry—Q. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and the comprehensive examination.

Winter, Garich, Kudo

The student will be involved in the treatment and care of team-care patients with acute psychiatric illness. Under the supervision of the psychiatric pharmacist, the student will be involved with drug therapy monitoring and will attend daily rounds, meetings and conferences as scheduled. CL PHARM

185.36. Nutrition Support—Q. (1-8) F,W, Sp. Prerequisite: Completion of all first-, second- and third-year required coursework 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

185.37. Pain Management—Sequoia. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Kudzia, Ferraresi

Students will participate in the clinical management of pain for ambulatory, hospitalized, and homecare patients. Activities include interviews and drug therapy evaluation, providing drug information to patients and health care professionals, participating in patient care conferences and homecare services. CL PHARM

185.38. Oncology/Hospice/AIDS—Sequoia. (1-8) SS1, SS2, F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Kudzia, Fanning

Students will participate in clinical programs in the oncology, AIDS, and Hospice services in the Acute and Homecare and Hospice settings. Activities include participation in I.V. admixture of chemotherapy, patient profile reviews, patient teaching, interventions for pain control, and drug information. CL PHARM

185.60. Adult Day Health Centers—STM. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor. CP 148 &/or 149 preferred. Clinic: 20-40 hours

Winter, Bookwalter

Students will learn the interdisciplinary approach to providing health care by participating in and contributing to Intake and Assessment meetings at adult day health centers. Knowledge of special pharmacy services, legal requirements, drug formulary maintenance and drug utilization will be acquired. CL PHARM

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

Winter

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

185.70. Consultant Practice in Extended Care. (1-8) 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

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

185.73. Integrated Care Systems. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Gross

Students participate in home health care services, including fluid compounding, patient monitoring, multidisciplinary meetings, interaction 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

185.74. Lifesource. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Alexander

Under the supervision of a pharmacist, students participate in the compounding, monitoring, and management of parenteral nutrition and medications for home-bound patients. Students also become familiar with the administrative structure and marketing of home health services. CL PHARM

185.76. Home Care Mgmt of High-Risk Ob Patient. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Epstein

Students participate in the activities of Tokos Medical Corporation, including patient monitoring and attendance at medical rounds. They will work under the supervision of the clinical pharmacist in the provision of home care to the high-risk obstetrics patient. CL PHARM

185.77. Drug Utilization Eval and Target Drug Programs. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, Bergstrom

Students will design and implement a target drug program which will include the following components: Drug utilization evaluation, written proposal, implementation, followup, and publication. Students will participate in didactic conferences which will discuss formulary management, DUEs, cost containment strategies, and target drug implementation. CL PHARM

185.78. Drug Usage Eval and Target Drug Programs. (1-8) F,W, Sp. Prerequisite: Successful

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

Winter, L. Davis

Students will design and implement a drug usage evaluation and target drug program which will include the following: Development of a written proposal, presentation to the P&T Committee, and implementation, data collection and followup activities. Students will participate in didactic conferences which will discuss formulary management, Drug Usage Evaluation process, cost containment strategies, and target drug implementation activities. CL PHARM

185.79. IV Admixture, Automated Unit Dose. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Winter, K. Lee, Christa

Students will participate in a centralized IV Admixture, Automated Unit Dose system of distribution and outpatient pharmacy operation. Activities will include patient profile reviews, drug usage evaluations, drug information research and presentations. Optional computer and management training is available. CL PHARM

185.86. Pharmacy Quality Assurance/Drug Utilization Evaluation. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Johnson

This rotation teaches students the process of how to set up criteria for conducting drug utilization evaluation. Students will have an understanding of the limitations and applicability of data generated from DUEs. Additional experience will be obtained in other quality assurance projects. CL PHARM

185.95. Drug Use Evaluation—UC-S. (1-8) SS1, SS2, F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Winter, Krstenansky

Students will participate in drug usage evaluations, focusing on concurrent monitoring and interventions designed to improve patient outcome. They will also investigate reported adverse drug reactions and assist in the development of educational programs for other health care professionals. 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 antibi-

otic 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

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 pharmacokinetic calculations. CL PHARM

187.02. Pharmacokinetics—MHLB. (1-8) 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

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

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 of 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

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 Clkshp. (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 Friendly Hills Medical Center (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 are 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) 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) 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 coursework.

Shimomura

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

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

Students participate in the activities of an intravenous additive service in a large university teaching hospital. Students will learn about aseptic technique, compati-

bility 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

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

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) F,W,Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework 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 Consult Service—UCD. (1-8) F,W,Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework, Clinical Pharmacy 148 and 149 and consent of instructor.

Sauer and Staff

Students will participate in the activities of the Psychiatric Consult Service. Activities include participation on consult rounds, interviewing patients, and monitoring drug therapy in selected patients. CL PHARM

188.03. Poison Information—UCD. (1-8) Su, F,W,Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework and consent of instructor.

Sauer and Staff

Students participate in poison control center activities, e.g., answering phone, taking 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) F,W,Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework, CP 148, 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) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework, 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) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework and consent of instructor.

Sauer and Staff

The student will work with pharmacists providing clinical and distributive services to critically ill patients in the surgical Intensive Care Unit. Activities will include patient rounds, monitoring drug therapy, and providing drug information and pharmacokinetic consultation. CL PHARM

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

Sauer, Nishikawa, Sieplar

This clerkship offers the student an extensive experience in clinical nutrition. Students will assist pharmacists in the management of patients requiring parenteral nutrition and will become an integral member of the Clinical Nutrition Service. CL PHARM

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

Sauer, Mowers, Dunlap

The student will participate in the activities of the Drug Use Evaluation/Drug Information Service. Activities include conducting DUEs, preparing formulary evaluations for the Pharmacy and Therapeutics Committee and providing drug information consultation to hospital staff. CL PHARM

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

188.11. Pharmacokinetic Consult Service—UCD. (1-8) Su., F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework, and consent of instructor.

B. Sauer, Dager

Students will participate in the activities of the pharmacokinetics consult service. Activities will include monitoring patients on selected drugs and providing pharmacokinetic consultation to the medical staff. CL PHARM

188.12. Pediatrics—UCD (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework, and consent of instructor.

Sauer and Staff

Under supervision of the clinical pharmacist, students will become members of the pediatric ward team. They will attend rounds and conferences, monitor patients, evaluate drug therapy, and when appropriate, recommend therapy. Patients vary in age from 2 weeks to 16 years. CL PHARM

188.20. Oncology—Sutter Memorial Hospital. (4-8) F,W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Sauer, Brown and Staff

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—DCH. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Sauer, Brown and Staff

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

188.25. Managed Care, County of Sacramento. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework, and consent of instructor.

Sauer, Mitsuoka

Students will become familiar with principles and operation of a managed health care organization. The student will then identify an area of potential cost containment and develop a written policy and procedure to effect a positive clinical and economic solution. CL PHARM

188.26. Acute Care—CHS. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework, and consent of instructor.

Sauer, Dallas, Beeman

Students will concentrate on developing skills in the clinical arena utilizing state-of-the-art technology,

while dealing with a variety of patients in the community hospital setting. Communication with other healthcare disciplines is stressed. CL PHARM

188.27. State Food & Drug Branch. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework, and consent of instructor.

Sauer, Hazlet

The Food & Drug Branch (FDB) is the regulatory agency in the State of California responsible for processed food, cosmetics, drugs, and medical devices. Students, based upon interests and goals, will participate in investigational drug reviews, analysis of proposed legislation, and/or special projects. The number of hours spent in each area and total units will depend on the student project and will be agreed upon by the student and preceptor prior to starting the clerkship. CL PHARM

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

Sauer, Fox

Students 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. Skilled Nursing Facility Consultation—Sutter Oaks. (1-8) Su, F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework and consent of instructor.

Sauer, DiGiambattista

The student will participate in the activities of a pharmacist consulting in the long-term care setting. The student will learn federal and state SNF regulations and will conduct a project. CL PHARM

188.32. Home Infusion Pharmacy—NMC Inc. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year coursework and consent of instructor.

Sauer, 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

188.33. Community Inpatient Psychiatric Clerkship—SVH. (1-8) F,W, Sp. Prerequisite: Completion of all first-, second- and third-year required coursework and consent of instructor.

Sauer, Talaga, Fritz

A supervised clinical experience in a community-based psychiatric hospital that allows students to develop skills in drug selection and monitoring of response and compliance. Through observation and participation, students will understand the contributions of clinical pharmacists in multi-disciplinary treatment. CL PHARM

188.40. Veterinary Medicine—UCD. (1-8) F,W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and consent of instructor.

Sauer, Enos

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

188.45. Hematology/Oncology—K. (1-8) F,W, Sp. Prerequisite: CP 130, 131, 132. Fourth-year standing.

Sauer, Lance

Students participate in the clinical and dispensing activities of the hematology/oncology clinic. Activities include rounding with physicians, participation on the hospice multidisciplinary team, attending required conferences, and preparation and delivery of sterile chemotherapy agents. A project is required. CL PHARM

188.81. Community Pharmacy Management—UCD. (1-8) F,W, Sp. Prerequisite: CP 130, 131, 132. Fourth-year standing.

Sauer, Lallo, Ingram

The student will gain practical and didactic experience in all aspects of operation and management of an outpatient community prescription pharmacy. Emphasis will be placed on business and management aspects of practicing in a prescription-only pharmacy, one of three in a small independent group. 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

Comprehensive Dental Care

110.01 Introduction to Comprehensive Dental Care. (1) F Lecture 1 hour.

Hume, Bird, Perry

Lecture topics include basic concepts of dental health and disease, examination of the oral and facial structures, and working in the dental clinic environment. RESTOR DENT & DENT PUB HLTH

110.02 Introduction to Comprehensive Dental Care. (1) W Lecture 1 hour.

Hume, Bird, Perry

Lecture topics include dental assisting skills, the dental operative fields, and oral hygiene care at the level of preventive and maintenance care. RESTOR DENT & DENT PUB HLTH

116 Introduction to Comprehensive Dental Care. (0-6) F,W, Sp.

Bird, Hume, Otis

First-year students will be introduced to comprehensive care through seminars, laboratory and clinical experiences in epidemiology, preventive dentistry,

ergonomics, basic-level dental hygiene and assisting skills, patient counseling and behavioral science techniques, history recording, and clinical oral radiography. DENT PUB HLTH, RESTOR DENT, STOMATOL

126 Intermediate Comprehensive Dental Care.

(6) Pre-F, F, W, Sp. Clinic 3 hours. Rotation 3 hours.

Richards, Bird, Lee

This course provides introductory experiences in health assessment, generating differential diagnoses, administering local anesthesia, root-planing teeth, and operating as clinical assistants. Clinical problem-solving sessions coordinate and reinforce important principles. Students learn to provide appropriate treatment to patients with uncomplicated periodontal and restorative needs. STOMATOL, DENT PUB HLTH, RESTOR DENT, ORAL & MAX SURG

156 Introduction to Comprehensive Dental Care. (0-5) F, W, Sp.

Perry, Bird, Hume, Otis

First-year dental hygiene students will be introduced to comprehensive care through seminars, laboratory and clinical experiences in epidemiology, preventive dentistry, ergonomics, basic-level dental hygiene and assisting skills, patient counseling and behavioral science techniques, history recording, and clinical oral radiography. DENT PUB HLTH, RESTOR DENT, STOMATOL

Craniofacial Anomalies

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

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.

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 Health Education

150. Human Development & Oral Health Education. (2) W. Lecture 2 hours.

Rowe

Introduces the student to basic concepts of preventive oral hygiene, learning and motivation theories, and an overview of human development, including physical/dental, cognitive, emotional, and psychosocial aspects across the lifespan. DENT PUB HLTH

161ABC. Curriculum Theory & Design. (0-3) F, W, Sp. Lecture 3 hours.

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

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

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

Walsh

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.

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

Dental Hygiene

101.01. Leadership & Mgmt in Dental Hyg. (2) W. Lecture 2 hours.

M. Walsh

Analysis of leadership and management theories, and of primary leadership skills related to personal behavior, communication, organization, and self examination. Graduate programs and leadership roles in dental hygiene education, accreditation, public health, and industry are discussed. Course provides opportunity to develop leadership roles appropriate to the student's area of interest. DENT PUB HLTH

101.02. Leadership & Mgmt in Dental Hyg. (2) Sp. Lecture 2 hours.

Hannebrink

Consideration of dental hygiene leadership roles in the areas of practice management and career planning including goal analysis and nontraditional roles for dental hygienists. Course provides opportunity to implement leadership role in student's area of interest.

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

150.01. Theoretical Foundations for Dental Hyg. (1) F. Prerequisite: Dental hygiene standing. Lecture 2 hours.

M. Walsh, Heckman, Poupard

Course introduces a conceptual framework and theoretical approach as the basis for providing dental hygiene care. Basic concepts of health and illness, human need theory, the scientific method, and leadership theories are considered with emphasis on health promotion and disease prevention for the individual, family, and community. DENT PUB HLTH

150.02. Assessments in the Dental Hygiene Process. (1) F. Prerequisite: DH 150.01. Lecture 1 hour.

Walsh

This course focuses on assessment, planning, goal setting, implementation, and evaluation of the dental hygiene process. The rationale for data collection, clinical techniques, and documentation procedures are presented. DENT PUB HLTH

150.03. Dental Hyg Planning, Implementation, & Evaluation. (2) W. Lecture 2 hours.

Fannon

The planning, implementation, and evaluation phases of the dental hygiene care process will be emphasized as a continuation of DH 150.02. The use of assessment data to plan care and set goals for the patient will be presented as well as the implementation of highly technical skills of dental hygiene practice. Evaluation of dental hygiene care is emphasized as an essential component of the dental hygiene process. DENT PUB HLTH

150.04. Dental Hyg Care for Patients with Special Needs. (2) Sp. Prerequisite: DH 150.01, 150.02 & 150.03. Lecture 2 hours.

Rowe

Course addresses the role of the dental hygienist in preventive dentistry and non-surgical periodontal therapy with emphasis on the objective and principles of comprehensive dental hygiene care for special needs patients. Modification of dental hy-

giene care for special needs patients will include the areas of communication, appointment planning, environmental considerations, home care, and safety precautions in treatment. 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

153A-B. Clinical Dental Hygiene Seminar.

(1-1) F, W. Prerequisite: DH 153A is prerequisite to DH 153B. Seminar 1 hour.

Yamamoto

Seminar to discuss the dental hygiene process as applied to dental hygiene care. Each seminar will provide an orientation to each of the techniques/skills taught as part of dental hygiene practice in DH 155A&B (Clinical/Lab application). Armamentarium, sequential steps for technique performance as well as specific criteria for performance evaluation are included. DENT PUB HLTH

153C. Clinical Dental Hyg Care Seminar. (1) Sp. Seminar 1 hour.

Yamamoto

Seminar discussions will focus on code of conduct, patient care responsibilities, patient records, financial policies, emergency procedures, infection control protocols, clinic administrative policies/procedures and patient care, and issues related to clinical dental hygiene care. DENT PUB HLTH

155A. Introduction to Clinical Dental Hygiene Care. (1) F. Lab 3 hours.

Yamamoto

Laboratory and clinical experiences to introduce the student to interpersonal skills, technical skills, and procedures used in the clinical practice of dental hygiene. They include professional conduct, medical history review, and introduction to examination, exploring, probing, and scaling techniques. DENT PUB HLTH

155B. Intro to Clin Dental Hygiene Care. (2) W. Prerequisite: DH 155A. Lab 6 hours.

Yamamoto

Continuation of lab and clinical experiences in patient assessments with greater emphasis on dental hygiene care, planning, goal setting, case presentation, and implementation of instrumentation techniques for providing prevention-oriented dental hygiene care and non-surgical periodontal therapy. Dental hygiene care evaluation is also emphasized as an essential component of the dental hygiene process. DENT PUB HLTH

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

Yamamoto

Clinical application of the dental hygiene process for delivering patient-centered dental hygiene care incor-

porating a human needs theory framework. Patient care responsibilities will include prevention-oriented dental hygiene care and non-surgical periodontal therapy. Improved proficiency in assessment, planning, goal setting, implementation, and evaluation of patient care and associated professional responsibilities will be emphasized. DENT PUB HLTH

160. Ethics and Jurisprudence. (1) W. Lecture 1 hour.

Hannebrink

Introduction to the ethical, legal, and professional responsibilities of the dental hygienist. Emphasis on the California Dental Practice Act, malpractice prevention, and professional organizations. DENT PUB HLTH

161. Orientation to Dentistry. (2) Sp. Lecture 2 hours.

Rowe

Orientation to the various specialties and areas in the field such as dental transplants, orthodontics, oral surgery, craniofacial anomalies, maxillofacial rehabilitation, and removable and fixed prosthodontics. This course is intended to help prepare dental hygiene students to be more knowledgeable and informed so that each patient can receive the finest care possible according to his/her respective needs. DENT PUB HLTH

163.01. Comprehensive Dental Hygiene Care. (2) F. Lecture 2 hours.

M. Walsh

Study and integration of additional clinical procedures into the dental hygiene process to insure and enhance quality comprehensive dental hygiene care. DENT PUB HLTH

163.02. Comprehensive Dental Hygiene Care. (1) Sp. Prerequisite: DH 163.01. Lecture 1 hour.

D. Perry

Continuation of the study and integration of additional clinical procedures into the dental hygiene process to insure and enhance quality comprehensive dental hygiene care. DENT PUB HLTH

164. Clinical Dental Hygiene Seminar. (0-1) F, W, Sp. Prerequisite: Second-year dental hygiene standing. Seminar 1 hour.

Hannebrink

Clinical seminar to discuss clinic policies and procedures, dental hygiene treatment planning, and related topics. DENT PUB HLTH

166. Expanded 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

169A-B-C. Compr Clinical Dental Hygiene Care. (4-5-5) F, W, Sp. Prerequisite: Dental Hygiene

150.01, 150.02, 150.03, 150.04, 155A, 154.01, 154.02, 154.03, 159. Concurrent enrollment in Dental Hygiene 169. Clinic 12 hours F, 15 hours W, Sp.

Perry

Assessment of patient histories and signs of deviation from normal in the oral-facial complex, and planning, implementing and evaluating comprehensive dental hygiene care within a human needs framework. Includes advanced techniques of periodontal nonsurgical and maintenance therapy, pain control, gingival curettage, for the periodontitis-affected patient. DENT PUB HLTH

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

Walsh

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, Silverstein

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 Public Health and Hygiene

117. Professional Issues in Dentistry. (3) F. Seminar 8 hours.

Silverstein and Staff

Lectures and seminars on professional issues in dentistry. Topics included are: Modes of practice, dental needs of special groups, drug use/abuse, ethics and history of dentistry. DENT PUB HLTH

130. Dental Personnel & Patient Management. (1) Sp. Lecture 1 hour.

Bird

Course is designed to further the development of the third-year student's behavioral science and dental personnel management skills. Focus is on skills in managing office personnel and patient care. The elements of developing the OSHA-required Hazard Communication Program are included. DENT PUB HLTH

131. Behavioral Sciences in Dental Practice. (1) SS1, SS2. Lecture 1 hour.

Gerbert

This course will cover dentist-patient communication, special patients, psychosocial aspects of dental care, and issues of professionalism. DENT PUB HLTH

140A-B-C. Multidisciplinary Topics in Dentistry. (0-6) F, W, Sp. Prerequisite: Senior dental student. 20 hours per week for 3 weeks.

Bird and Staff

A comprehensive course designed for fourth-year students. Reinforces significant aspects of clinical and biomedical sciences, bioethics, and dental practice management, and updates students on new developments in dentistry. DENT PUB HLTH

140.01. Multidisciplinary Topics in Dentistry. (1.5) SS. 15 hours per week for 1 week.

Bird and Staff

This is a multidisciplinary course designed for the beginning fourth-year dental student. It is designed to prepare students for the advanced clinical skills needed in esthetics, materials, complex case and team efficiency management. In addition, it is intended to give the student direction to achieve immediate post-graduate goals. DENT PUB HLTH

149. Family Dental Care. (0-8) Su. 15 hours per week for 1 week.

Bird and Staff

This is a multidisciplinary course designed for the beginning fourth-year dental student. It is designed to prepare students for the advanced clinical skills needed in esthetics, materials, complex case and team efficiency management. In addition, it is intended to give the student direction to achieve immediate post-graduate goals. 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. 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

186. Multidisciplinary Geriatric Care. (1.5) F, W, Sp. Lecture 2 hours. Field work 2 hours. Conference 1.5 hours (optional).

Bird, Rogers, Becker, Williams, Leed

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

186.10. Issues in Professional Leadership. (1) Su, F, W, Sp. Prerequisite: Permission of instructor. Restriction: Limited to 12 students. Conference 1 hour.

Greene

This course is designed to give structure and guidance to the experience of students with an interest in leadership and governance. DENT PUB HLTH

186.20. Communication Skills in Dentistry. (1) F. Seminar 1 hour.

Yee, Bird, and Staff

Practice management: communication skills in dentistry. Students will learn effective communication skills with patients and staff through personality profiles. They will become effective in case presentations, and in dealing with fearful, angry, unmotivated patients. DENT PUB HLTH

186.30. Dental Private Practice: Career Guidance and Planning. (1) W. Seminar 1 hour.

Yee, Bird, and Staff

Practice management: career guidance and planning. Students will learn effective resume writing and interviewing skills for associateship positions, and key steps needed to purchase a new or existing dental practice. Each student will have written career and life goals and action steps. DENT PUB HLTH

186.40. Dental Private Practice: Financial Planning and Management. (1) Sp. Seminar 1 hour.

Yee, Bird, and Staff

Practice management: financial planning and management. Effective financial management principles to run a profitable, low stress private practice. Concepts on debt management, cash flow, fee setting, budgeting, doctor and staff compensation, and break-even analysis will be covered. DENT PUB HLTH

186.50. Advanced Dental Practice Management.

(1-2) F,W,Sp. Prerequisite: Permission of instructor. Restriction: Limited to 15 students. Seminar 1 hour. Research 1 hour. Project 1 hour (optional).

Bird

Advanced concepts of dental practice management utilizing dental practice case studies, computer simulations and practice analysis techniques, and independent study. Orientation to dental management systems will be included. DENT PUB HLTH

188. Research Methods and Design in the Behavioral Sciences. (1) F,W. 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

188.10. Dental Science and Health Education I.

(1) F Prerequisite: DPHH 116 or consent of instructor. Restriction: Limited to 6-10 students. Seminar 1 hour. Research 0-1 hour. Field work 0-3 hours.

Pollick

Review of literature on dental science projects and dental health education for grades 6-8 in the San Francisco Unified School District. Students will develop their own project to assess needs and plan, implement, and evaluate a program to address those needs. In conjunction with the Science and Health Education Partnership between UCSF and San Francisco Unified District middle schools. DENT PUB HLTH

188.20. Dental Science and Health Education II.

(1) W. Prerequisite: DPHH 188.10 or consent of instructor. Restriction: Limited to 6-10 students. Seminar 1 hour. Research 0-1 hour. Field work 0-3 hours.

Pollick

Review of literature on dental science projects and dental health education for grades 6-8 in the San Francisco Unified School District. Students will develop their own project to assess needs and plan, implement, and evaluate a program to address those needs. In conjunction with the Science and Health Education Partnership between UCSF and San Francisco Unified District middle schools. DENT PUB HLTH

188.30. Dental Science and Health Education III.

(1) Sp. Prerequisite: DPHH 188.20 or consent of instructor. Restriction: Limited to 6-10 students. Seminar 1 hour. Research 0-1 hour. Field work 0-3 hours.

Pollick

Review of literature on dental science projects and dental health education for grades 6-8 in the San Francisco Unified School District. Students will develop their own project to assess needs and plan, implement, and evaluate a program to address those needs. In conjunction with the Science and Health Education Partnership between UCSF and San Francisco Unified District middle schools. DENT PUB 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 with the approval of the chairperson of the department. DENT PUB HLTH

410. Practice Management for Advanced Education in General Dentistry. (1) W. Seminar 1 hour.

Bird

This seminar series is designed to provide the trainee with information on hiring, training, and evaluating personnel; purchasing or associating in a dental practice; role of business and professional advisers; and development of a business plan. DENT PUB HLTH

429.10. Clinical Teaching Practicum. (0-4) F,W,Sp.

Clinic 4 hours. Restriction: AEGD students enrolled in the second-year program.

Brody

Instruction and practice in providing dental clinical teaching. DENT PUB HLTH

489. Advanced Care for Special Patients. (0-6.5) Su, F,W,Sp.

Bird, Chin, Weisman

This seminar series will present the etiology, rationale, and methods used in the oral diagnosis and dental treatment of patients with medical or physical conditions that require a modification in the provision of dental care. Trainees will provide dental services for such patients. DENT PUB HLTH

489.10. Advanced Dental Care for Special Patients. (0-6.5) Su, F,W,Sp. Prerequisite: DPHH 489.

Restriction: AEGD students enrolled in the second-year program.

Chin

This course will emphasize the provision of comprehensive dental services for patients with special needs such as the frail, elderly, developmentally disabled, and medically compromised. Students will provide clinical instruction for first-year trainees. DENT PUB HLTH

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.

(1.5 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. (1.5 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. (1.5 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 Clinical Dermatology. (1.5 per week) Su, F,W,Sp. Prerequisite: Dermatology 140.01.

Odom

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

150.01. Dermatology Research. (0.5 per week) Su, F,W,Sp. Prerequisite: Consent of instructor.

Wintroub

A research project under the direction of a member of the faculty. 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. **Wintroub and Staff**
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. (1.5 per week) Su, F, W, Sp. **Wintroub**
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. (1.5 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

Endocrinology

Courses in Endocrinology are offered through various departments. For further information regarding any of them, contact the instructor in charge or Dr. Zach Hall, Chair, Department of Physiology, Interdisciplinary Program in Endocrinology. See also Biochemistry course offerings.

150.01. Research. (1.5 per week) F,W, Sp. Prerequisite: Consent of instructor.

Staff
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.

Dallman
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

202. Mechanisms of Hormone Action. (3) § Sp. Prerequisite: Physiology 101 and/or Human Biology 200A-B, or Biochemistry 100A-B, or consent of instructor. Lecture 2 hours plus independent study. **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. Lecture 3 hours. Lab 3 hours. Seminar 1 hour.

Dallman, 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

210. Clinical Endocrinology Seminar. (1) § F,W, Sp.

Shoback
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

250. Research. (1-8) § F,W, Sp. **Hall**
PHYSIOLOGY

Epidemiology

Courses in Biostatistics and Anthropology, which are also offered through the Department of Epidemiology and Biostatistics, are listed separately under their respective headings.

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 & BIOSTAT

101. Epidemiology and Biostatistics. (3) Sp. Lecture 1.5 hours. Seminar 1.5 hours. Restriction: First-year medical student or consent of instructor.

Ernster, Croughan-Minihane, Black
Introduction to epidemiologic and biostatistical methods: Research approaches to disease etiology, prevention and treatment; interpretation and critical evaluation of medical literature; measures of disease occurrence; screening and diagnostic test evaluation; major disease risk factors; and clinical importance of preventive medicine. EPID & BIOSTAT

140.02B. Off-Campus Clerkship. (1.5 per week) Su, F,W, Sp. Prerequisite: Consent of chairperson of department.

Petrakis and Staff
Clerkships in clinical epidemiology in off-campus settings. EPID & BIOSTAT

140.03. Leprosy. (1.5 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 & BIOSTAT

140.05. Clinical Clerkships Abroad. (1.5 per week) F,W, Sp. Prerequisite: Nine months of clinical work and Epidemiology 150.01, or consent of instructor.

R. Goldsmith, Braveman, S. Lane
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 also be made to participate in a public health or research program abroad. EPID & BIOSTAT

140.06. Preventive Cardiology. (1.5 per week) F, W, Sp. Prerequisite: Medicine 110.

Siegel, Bersot, Cheitlin
Clinical experience in hypertension, lipid, cardiology, and smoking cessation clinics stressing behavioral interventions. Students also participate in a seminar covering major topics in preventive cardiology, choose a topic for presentation, and develop ability to evaluate literature critically. EPID & BIOSTAT

150.01. Medicine in Developing Countries. (1.5 per week) W. Prerequisite: Epidemiology 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 & BIOSTAT

150.02. Research Abroad. (1.5 per week) Su, F,W, Sp. Prerequisite: Consent of instructor. Restriction: Limited to 2 students per block.

F. Dunn and Staff
Research abroad, usually in a developing country, under supervision of a member of the Epidemiology faculty. Guidance is available principally for epidemiological studies and for research in tropical medicine, medical parasitology, medical anthropology, and topics in international health. EPID & BIOSTAT

160.01. Cancer Epidemiology. (1-2) W. Prerequisite: Epidemiology 101 or consent of instructor. Lecture 1 hour. Optional term paper for 2 units.

Petrakis and Staff
Survey and discussion of key papers in the epidemiology of major cancer sites. Emphasis is on etiologic and methodologic aspects and implications for prevention. EPID & BIOSTAT

170.05. Intro to International Health. (2) W. Lecture 2 hours.

F. Dunn and Staff
Lectures and discussion to survey the history, organizational structure, major activities and topics that comprise the field of international health. EPID & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

170.10. Occupational Epidemiology. (1-2) W. Prerequisite: Epidemiology 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 & BIOSTAT

170.12. Epidemiology of Infectious Diseases. (1-2) F. Prerequisite: Previous or concurrent enrollment in an introductory epidemiology course, such as Epidemiology 101 or equivalent, and previous or concurrent enrollment in an introductory microbiology course, such as Microbiology 100B or equivalent. Lecture/seminar 1 hour. Term paper for 2 units optional with consent of instructor.

Conte
Course considers the public health consequences of different communicable diseases (including AIDS, sexually transmitted diseases, tuberculosis, measles, and food-borne bacterial diseases), and examines strategies for surveillance, outbreak investigation and prevention (including immunization) of infectious diseases in different settings. EPID & BIOSTAT

170.13. Molecular Cancer Epidemiology. (1-2) W. Lecture/seminar 1 hour. Term paper for 2 units optional with consent of instructor.

Wiencke and Guest Lecturers
Course explores how biologic markers can be used to understand factors involved in human carcinogenesis and how to use lab methods and analytical epidemiology to identify, at the molecular and biochemical level, exogenous agents and host factors affecting human cancer causation. EPID & BIOSTAT

180. Hlth Intervention in Devl Areas. (1) § Sp. Prerequisite: Consent of instructor. Seminar 1 hour. Project 1 hour.

Kiefer

Explores practical and ethical problems of health workers from urban-industrial cultures intervening in developing areas. Provider/client differences in perception, values, needs. Problems of goal-setting, assessment, rapport, communication, consensus-building, evaluation. Practical experience in teaching health promotion to underserved groups. EPID & BIOSTAT

180.01. Tropical Medicine Clinics. (1-2) § Su, F, W, Sp. Prerequisite: Epidemiology 100 and 6 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 & BIOSTAT

180.04. Research Design. (3) § Su, F Prerequisite: Consent of instructor. Lecture 1 hour. Workshop 6 hours.

Hulley

A workshop for students to design their own protocol for carrying out a clinical research project. Specific topics are: the research question, study designs, study subjects, measurements, sample size, ethical considerations, presets, data management, quality control, and proposal writing. EPID & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

190. Introduction to Epidemiology. (3) § F,W, Sp. Lecture 3 hours.

Lipscomb and 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 & BIOSTAT

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 & BIOSTAT

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 & BIOSTAT

201. Socioepidemiology of Aging. (3) § Sp. Prerequisite: Consent of instructor. Lecture/seminar 2 hours. Library research 3 hours.

Davis and Guest Lecturers

Overview of the influences of sociodemographic structure, status, processes and changes on morbidity, functioning, longevity and mortality across the adult life span, with special emphasis on changes in sociodemographic risk factors with age. EPID & BIOSTAT

Family and Community Medicine

110. FM Core Clerkship. (1.5 per week) Su, F,W, Sp. Prerequisite: Completion of 20 weeks of clinical clerkship including Medicine 110.

Shore, 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, and VMC in Fresno. Primary Care Internal Medicine: at UC, SFGH, and MZ. FAM CM MED

140.01A-B-C-D. Advanced Family Practice. (1.5 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.

A-Shafer, B-Nkwocha, C-Slater, D-Rodnick, Mitchell

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. (1.5 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

140.04. Family Practice Preceptorship. (1.5 per week) Su, F,W, Sp. Prerequisite: Consent of instructor.

Shore

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. (1.5 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. (1.5 per week) A, B, and C are offered in all of the following quarters: Su, F,W, Sp. Prerequisite: Consent of instructor.

L. Crain, N. Byl

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

140.15. Longitudinal Clinic. (1) Su, F,W, Sp. Prerequisite: Senior clerkship which would enable the student to pick up patients to be followed in clinic.

Shore, Mitchell, Brody

Students will see primary care patients one-half day per week for six to nine months. They will continue to see patients who were initially seen during the student's medicine or FCM 110 clerkship. FAM CM MED

140.40. Adv Inpatient Fam Med Clkshp. (1.5 per week) Su, F,W, Sp. Prerequisite: Senior medicine clerkship.

R. Goldschmidt

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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110, Obstetrics and Gynecology 110, Pediatrics 110 and Surgery 110.

F. Walter

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

140.52. Rural Family Practice-Selma. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110, Surgery 110, Pediatrics 110, Ob/Gyn 110.

Shafer, Dzvornik

Primary care at Selma Community Health Center, in an agricultural community near Fresno. Ambulatory practice includes pediatrics, obstetrics, gynecology, and chronic diseases. Includes patient rounds, deliveries, and emergency room experience at modern rural hospital. Exposure to rural private family practice available. FAM CM MED

140.53. Inpatient Medicine/Family Practice. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110, FCM 110, fourth-year standing.

Heiligman, Nowlis, McCann

Students function as subinterns on general medicine ward staffed by Family Practice residents and faculty. Acute medical care is provided with special input from department psychologist and health educator. FAM CM MED

140.54. Primary Care in the Latino Community-Fresno. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110, or Peds 110, or Ob/Gyn 110, or consent of instructor.

Cruz

Outpatient clinical experience in a community health center in a predominately Latino community, with emphasis on community-oriented primary care. Each student's program will be individually tailored to include exposure to epidemiology, pediatrics, ob/gyn, and adult medicine in a Latino community. FAM CM MED

140.60A-B-C-D. Clinical Geriatrics. (1.5 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

140.61. Geriatrics-Long-Term Care-LH. (1.5 per week) Su, F,W, Sp. Prerequisite: Third-year standing.

Beck, Borgenicht and Johnson

Students will work with geriatricians and other health professionals to learn about the clinical management of geriatric patients. FAM CM MED

140.70. Community Medicine in International Perspective. (1.5 per week) Su, F,W, Sp. Prerequisite: Conversational command of language of country of placement and consent of instructor.

Coady, 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 supervised sites, mainly in Latin America. FAM CM MED

150.01. Research. (1.5 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. (1.5-3) 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.

W. Shore

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.

Shore

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

160.04. Seminars in Sports Medicine. (3) F. Open only to second-year School of Medicine students or graduate students in Physical Therapy. Seminar 2.5 hours. Field work 1 hour.

Brown

A seminar series and practical field experience providing basic information on a broad variety of issues in sports and dance medicine, including evaluation, prevention of injury, conditioning, environmental issues and sports psychology. 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, N. Medina

Explores health care attitudes, health problems and health care resources in the multi-ethnic Mission District 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

160.70. Community Medicine in International Perspectives. (1.5 per week) F,W, Sp. Prerequisite: Consent of instructor.

Coady, Lane, Goldsmith, Pettiti

An 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 as well as availability of appropriately supervised sites. 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.

Rodnick and Staff

Lecture and reading 1-3 hours.

Rodnick 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. (1) Su, F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours for 6 weeks.

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

170.08. Complementary Forms of Healing. (1)

F. Medical students only. Lecture 1 hour.

Hughes

This course explores the general theory and practice of several widely utilized non-allopathic healing modalities with the aim of demonstrating how these therapies can be complementary to modern technology-centered health care. FAM CM MED

170.09. Health Issues in Central America. (1) W.

Lecture 1 hour.

Baron, Braveman, Perez-Stable

A lecture-discussion course on current issues in health care in Central America. Emphasis is on relationship between health situation in Central American nations and its relation to Central American patients seen in San Francisco. FAM CM MED

170.10A. Homeless Health Issues. (1) F. Lecture 1 hour.

Desmond

A survey course covering the broad spectrum of living issues (health care, drug addiction, HIV, shelter life, etc.) confronting the homeless population of San Francisco. The seminar will be given in lecture format during the lunch hour. One session will be devoted to discussion of issues presented. FAM CM MED

170.10B-C. Homeless Health Issues: Case Discussion and Presentation. (1-1) W, Sp. Prerequisite: Involvement with student-run homeless health clinic. Conference 1 hour.

Lane

A two-quarter conference which enables first- and second-year medical students to research and present case studies encountered during work at the student-run clinic. Two to three cases will be presented and discussed each week. 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 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

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

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

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.

Barbaccia

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.

Rodnick 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

Genetics

200A. Principles of Genetics. (3) § F Lecture 3 hours.

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. (0.5) § 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

222. Topic in Medical Genetics. (1) § Su, F,W, Sp. Conference 1.5 hours. Clinic 1.5 hours.

Epstein, Packman, Cox

A course using participation in a working genetics clinic and directed reading and discussion to present the concepts and approaches of medical genetics and the application of molecular, cellular, and developmental biology to the understanding of human genetic disease. BIOCHEM

224. Advanced Human Genetics. (1.5) § Sp. Lecture 1.5 hours. Offered in alternate years. Offered 1993-94.

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

226. Human Developmental Genetics. (2) § Sp. Seminar 2 hours. Prerequisite: Genetics 200A. Offered in alternate years. Not offered 1993-94.

Epstein

A seminar course in which human genetic disorders affecting morphogenesis and development will be analyzed to elucidate the pathogenetic relationships between the underlying molecular defects and the resulting phenotypic abnormalities. BIOCHEM

250. Research. (1-8) § F,W, Sp.

Staff

BIOCHEM

Growth and Development

110. Normal & Abnormal Craniofacial Dev.

(1) F Lecture 1 hour.

Kahn, S. Fisher, C. Cook, R. Coleman, Kapila

Developmental processes underlying normal and abnormal craniofacial morphogenesis are presented and the biologic basis for congenital malformations are discussed. GR DEVEL

120. Orofacial Functions/Dysfunctions. (1) W.

Lecture 1 hour.

Vargervik, Peterson-Falzone, Kapila

Clinical considerations of normal and abnormal patterns of orofacial function are discussed to provide a basis for diagnosis and prognosis of functional disorders involving the orofacial region. GR DEVEL

122. Oral Physiology. (1.5) F Lecture 3 hours.

A. Miller

The physiology of the craniofacial region will be taught emphasizing endocrine control of calcium and phosphate, mineralization, salivation and taste, sensory control related to craniomandibular muscles, mastication, swallowing, and characteristics of craniomandibular muscles. GR DEVEL

188. Relevance of Neuromuscular System to Craniofacial Dev. (2) F Prerequisite: Physiology.

Enrollment limited to senior dental students and post-doctoral graduate students in orthodontics, pediatric dentistry, removable prosthodontics.

A. Miller

Course illustrates how the neuromuscular system of the craniomandibular region affects and interacts with craniofacial development by modifying its function, diet, force development, impairing its development and function, and altering occlusion. GR DEVEL

210. Developmental Biology of the Craniofacial Complex. (2) § SS1, SS2. Prerequisite: Available for credit to graduate students in Oral Biology, dental postgraduate specialty programs, and as an elective to upper class students in Dentistry and Medicine. Lecture 1 hour. Seminar 0.5 hour. Conference 0.5 hour.

Kahn, Derynck, Vargervik, Chierici, Damsky Lectures, seminars, and classroom discussion on the fundamental mechanisms underlying craniofacial development and the etiology, pathogenesis, and treatment of craniofacial defects. GR DEVEL

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

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 standing and consent of instructor. Seminar 3 hours. Research project required.

Staff

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, Sp. Prerequisite: Consent of instructor. Lecture 1-2 hours. Optional 1-2 hour seminar, conference, or independent study or research paper.

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

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

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, Pressman

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).

Pressman

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. (2-4) § 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. (2-4) § W. Prerequisite: Consent of instructor.

Lecture 2 hours. Seminar 1 hour. Term paper (optional).

Risse, 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, and the decline of plague. HIST HL SC

201C. Health and Plagues: Ecology and History. (2-4) § Sp. Prerequisite: Consent of instructor.

Lecture 2 hours. Seminar 1 hour. Term paper (optional).

Risse, Pressman

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

204A. Historical Research I. (2-4) § W. Prerequisite: Consent of instructor. Seminar 2 hours. Optional term paper & reports.

Risse, Pressman

Introduction to medical historiography. Discussion of the different approaches employed in writing and interpreting history. HIST HLTH SCI

204B. Historical Research II. (2-4) § W. Prerequisite: Consent of instructor. Seminar 2 hours. Optional term paper & reports.

Pressman

Introduction to research in medical history. Survey of bibliographical tools available to historians. Visits to archives and libraries in the Bay Area. Interviewing skills and preparatory research for oral history. HIST HLTH SCI

204C. Historical Research III. (2-4) § Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Optional research papers.

Pressman

Introduction to the craft of interpreting and writing medical history. Directed and assisted research and writing of historical topics. HIST HLTH SCI

206. History of Psychiatry. (2-4) § F Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour.

Pressman

Evolution of conceptions of madness and treatment of the mentally ill, from the Renaissance to the present. These developments are explored through a focus on cultural and social contexts. Particular attention is paid to the development of the insane asylum. HIST HLTH SCI

210. Topics in the History of Nursing. (2-3) § Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Term paper (optional).

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

211A. History of Hospitals I. (2-4) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour

Risse

Analysis of institutional developments from pre-Christian times, Christian hospitality and segregation schemes, to the secularization and medicalization of the hospital during the Enlightenment. HIST HLTH SCI

211B. History of Hospitals II. (2-4) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour.

Pressman

Course begins with the early Industrial Revolution and ends with the modern technologically intensive institution that dominates current medicine. HIST HLTH SCI

213. Topics in American Medicine. (2-4) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour

Pressman

The rise of the American health care system and the broadening cultural authority of the medical expert are examined historically. Topics include sectarian medicine, nursing, the Progressive movement, intelligence testing, pharmaceuticals, and the role of government. HIST HLTH SCI

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 diagnostic 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. Seminar 1-4 hours.

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).

Clarke

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

Human Development & 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.

Staff

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

202A-B-C. Res Meth in Adult Devel & Aging. (4) § F,W, Sp. Prerequisite: Consent of instructor. Lab 6 hours.

Staff

This three-quarter course covers major methods and techniques of life course/life span research including surveys, field observations, analysis of quantitative and qualitative data, and longitudinal research. 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.

Mullan

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

214. Adv Personal Development. (2-3) § Sp. Prerequisite: Hum Dev 204, or consent of instructor. Seminar 2 hours, optional extra unit.

Kiefer

The prerequisite, Hum Dev 204, combines study of mainstream theories of adult personality development with literary works as case material. This course, Hum Dev 214, proceeds to the study of alternative modes from lesser-known Western and Asian traditions—C. G. Jung, William James, Hindu, Buddhist, Taoist, and Judeo-Christian spiritualist writings—and literary examples based on these. 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

229. Sociology of Stress. (2) § F,W, Sp. Prerequisite: Consent of instructor. Doctoral students only. Seminar 2 hours.

Pearlin

Course explores current theories and research dealing with sources of stress and coping mechanisms. Course examines the conditions and experiences that act as stressors, coping behaviors, the nature and functions of social support systems, and the health consequences of stress. 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. Six hours additional research work. **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

231. Social Psychology of Aging. (3) § F. Prerequisite: Doctoral student and consent of instructor. Lecture 2 hours. Lab 3 hours.

Pearlin

Course examines the socio-psychological aspects of aging and life cycle changes. Course also examines the socialization of an aged role, norms for older people, and special problems of aging individuals. 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. (1.5) Sp. Lecture 1.5 hours. Offered in alternate years. Not offered 1993-94.

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

110. Core Clerkship in Surg Specialties. (1.5 per week) Su, F, W, Sp. Prerequisite: Third-year standing.

R. Boles, J. O'Donnell, J. Morris, E. Tanagho

A four-week required clerkship in the surgery specialties including Ophthalmology, Orthopaedic Surgery, Otolaryngology, and Urology. The curriculum will consist of lectures, seminars, physical diagnosis, outpatient clinical activities and, to a limited degree, procedure and surgical experience in both ambulatory and operating room areas. OTOLARYN, OPHTHALMOL, ORTHO SURG, UROLOGY

135. Reproduction Growth & Devel. (3) F Lecture 3 hours.

Parer, Sniderman

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 R S

149. Family Dental Care. (0-8) Su, F, W, Sp. Prerequisite: 4th-year standing.

Bird and Staff

The fourth-year dental student will learn advanced skills in pediatric and general restorative dentistry in oral diagnosis, treatment planning, and delivery of comprehensive dental care. Emphasis will be on the efficient delivery of care considering the family as a unit. DENT PUBL HLTH

191. Introductory Cell Biology. (3.5) § F Lecture 6 hours, lab 4 hours, conference 1 hour: 4-week course.

D. Colby, S. Wissig

Course covers the basic principles of cell biology and introduces the histology of epithelia, nerve cells, muscles, and connective tissue. Intended for beginning graduate students. ANATOMY & BIOCHEM

192. Introductory Molecular Biology. (2.5) § F Prerequisite: Interdepartmental Studies 191. Lecture 3 hours, conference 1 hour: 7-week course.

D. Colby

Covers the basic principles of molecular biology with emphasis on their application to control of gene expression in humans. ANATOMY & BIOCHEM

193. Organ System Histology. (4) § F Prerequisite: Interdepartmental Studies 191. Lecture 3 hours, lab 4 hours, independent study 4 hours: 7-week course.

S. Wissig

Course covers the light and electron microscopic structure of organs with emphasis on the relationship of structure to organ function. The histology of endocrine and reproductive systems is presented in a separate course, Physiology 101. ANATOMY & BIOCHEM

Laboratory Medicine

140.01. Principles of Laboratory Medicine—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Two years of medical school.

Gottfried, Ng, Hadley, Hung, Khayam-Bashi

Laboratory sessions, seminars and rounds at SFGH correlate laboratory tests with clinical case studies. This course covers general principles and specific topics in chemistry, hematology, microbiology, serology, immunology and transfusion medicine. The schedule can be modified to accommodate special interests. LAB MED

140.05. Clinical Pathology—VMC. (1.5 per week) § F, W, Sp. Prerequisite: Medicine 110 and consent of instructor.

Soben, Moseley

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Bauer, Beland, 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

140.07. Hematology—UC. (1.5 per week) F, W, Sp. Prerequisite: Medicine 110.

Atwater, Corash

Students participate in daily operations of the hematology laboratory, working with a resident on either the Bone Marrow or Heme-Coag rotations evaluating current case materials, attending daily signout rounds, and attending weekly teaching conferences. LAB MED

140.08. Laboratory Medicine Microbiology. (1.5 per week) Su, F, W, Sp. Third- or fourth-year medical students.

Hadley, Pulliam, Brooks

Course provides practical microbiology laboratory instruction correlated with clinical infectious disease rounds. The student will observe laboratory diagnosis of viral, bacterial, fungal, and parasitic infections. The goal is a better understanding of how to use the laboratory for infectious diseases diagnosis. The practical course may be taken at VAMC, SFGH, or UC (four weeks per site). LAB MED

160.01. Radionuclides. (2) Su, F, W, Sp. Prerequisite: One year of medical school. Lecture 1 hour. Clinic 4 hours.

Lull, Lim, Yen

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.

Palefsky, 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

452. Cytometry & Cell Analysis. (3) W. Lecture 3 hours.

Mayall

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

Medicine

110. Medicine Core Clerkship—UC—SFGH—VA—MZ—VAF—VMC. (1.5 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

Students are part of the ward team with the housestaff 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. (1.5 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. (1.5 per week) Su, Sp. Prerequisite: Medicine 110 and Surgery 110. Restriction: All fourth-year students in School of Medicine for May session; all third-year students in School of Medicine for June session.

Lo

Course will discuss the ethical, legal, and policy issues in the clinical practice of medicine. Students are required to write a paper analyzing a case that presented ethical dilemmas. MEDICINE

131A-B-C. Introduction 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; 4 hours W, Sp.

M. Cooke, P. Braveman

Interdepartmental instruction in clinical problem-solving, interviewing, medical history, ethics, organization, and financing of care. On-going relationship with a patient focused on: health promotion/education; understanding barriers to access and "compliance"; community resources; health team. Small groups, lectures, and preceptorships. MEDICINE

132A-B-C. Introduction to Clinical Medicine. (7-6-6) F, W, Sp. Prerequisite: Anatomy 100A-B, 103; Biochemistry 100; Interdepartmental Studies 100, Medicine 131A-B-C; Microbiology 100A-B (may be taken concurrently); Pathology 101, 102 (may be taken concurrently); Physiology 100, 101; or consent of instructor.

M. Cooke

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—VAF—VMC—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Completion of Medicine 110.

UC Papadakis, VA Tierney, MZ Woeber, VAF/VMC Freeman, SFGH Haber

Students are assigned patients for study 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 discussed. MEDICINE

140.02. Off-Campus Clerkship. (1.5 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. Hematology/Oncology—UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Henderson

Students function as interns supervised by a fellow and resident on the Clinical Cancer Service working up patients with hematologic and solid tumor malignancies. In addition, students attend conferences, perform daily procedures, and write orders under supervision. MEDICINE

140.04. Infectious Diseases—VA. (1.5 per week) Su, F, W, Sp. Prerequisite: Completion of Medicine 110 and Surgery 110.

Jensen, Tager

Clinical elective with inpatient and outpatient infectious diseases at VAMC. Commonly encountered general ID problems of hospitalized patients, and

comprehensive outpatient management of HIV disease are stressed. Introduction to clinical microbiology and hospital epidemiology are included. MEDICINE

140.05. Clinical Cardiology—PMC. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Kline

Students manage one to two patients per week, giving them direct "hands-on" clinical experience. Students are expected to participate in all cardiology conferences, ward rounds, ECG reading sessions, Echocardiography and Nuclear Medicine rounds. MEDICINE

140.07. Oncology—SFGH. (1.5 per week) F,W, Sp. Prerequisite: Medicine 110.

Luce

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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Scharschmidt

Students, along with a second-year fellow, two first-year fellows, a medical resident and attending, serve as a member of the gastroenterology clinical service. Attend all conferences, participate in all patient management in both clinic and wards. MEDICINE

140.09. Clinical Cardiology—MZ. (1.5 per week) SS1, SS2, Su, F,W, Sp. Prerequisite: Medicine 110 and fourth-year standing. Consent of instructor.

Mailhot, E. Cohen, Paley

Students work up patients and follow patients through diagnostic and therapeutic procedures. There is considerable exposure to non-invasive, invasive, and interventional cardiology and post-operative cardiac care. Students participate in departmental conferences and hospital-wide conferences. MEDICINE

140.10. Pulmonary Medicine—MZ. (1.5 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

R. Cohen

Students evaluate and manage patients with blood coagulation and its disorders, hematologic and solid tumor malignancies. Learn the technique of bone

marrow aspiration and biopsy, and the morphologic interpretation of these specimens. Attend boards, rounds, and conferences. MEDICINE

140.12. Geriatrics—VA. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Loneragan

Serving on the Geriatric Evaluation and Management 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Completion of core clinical clerkships. Fourth-year standing.

Stansell, 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

140.14. Sexually Transmitted Diseases. (1.5 per week) Su, F,W, Sp. Prerequisite: Fourth-year standing. Lab 40 hours per week.

Bolan

Fourth-year medical students will be trained in the diagnosis, treatment, and management of sexually transmitted diseases in the clinical setting. MEDICINE

140.16. Hematology—SFGH. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Embury

Students, under supervision, evaluate hematology patients in the outpatient/inpatient consultation service; review relevant clinical data; interpret bone marrow slides. Emphasis is on the diagnosis and management of patients with hemoglobinopathies, sickle cell diseases, disorders of hematopoiesis, and abnormal coagulation. MEDICINE

140.18. Gastroenterology—VA. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Grendell

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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Karliner

Students share consultations with cardiology fellows; work up patients on the wards; interpret EEGs and other Holter monitor studies; attend rounds and conferences. MEDICINE

140.20. Infectious Disease—UC. (1.5 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. (1.5 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) F,W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Minimum class size 12; maximum class size 20.

Sebastian, Dohrmann

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, Ives

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 40.

Sebastian, Benowitz

Emphasis on applied pathophysiology and clinical therapeutics. 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

140.22I. Pathophys-Endocrine Metabolism. (6) W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Sebastian, Karpf

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

140.23. Endocrine Metabolism—UC. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Tyrrell

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. (1.5 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. (1.5 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Addison, 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Pont

Students will attend rounds in the coronary care unit and receive instruction in cardiology, stressing electrocardiography; students may work in the pulmonary function laboratory and attend all teaching conferences and seminars. MEDICINE

140.28. Infectious Disease—SFGH. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Chambers

Course includes active consultation service averaging three new consults 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110.

Shuman

Students evaluate patients on the wards and outpatient clinics; review peripheral blood smears; participate in conferences and seminars. Emphasis on patients with blood coagulation disorders, hematologic malignancies, and anemia. MEDICINE

140.30. Endocrine Metabolism—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Schambelan

The Endocrine-Metabolic Service provides daily housestaff and fellow-supervised consultations, four weekly clinics, bi-weekly rounds, and conferences on current research. Students participate in clinical investigation of patients with endocrine disorders who are hospitalized in the General Clinical Research Center. MEDICINE

140.33. Coronary Care at Moffitt/Long. (1.5 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 also 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Ives

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. (1.5 per week) F, W, Sp. Prerequisite: Medicine 110.

Cheitlin, Rapaport

Students see patients in consultation on wards and clinics, read electrocardiograms, improve auscultatory skills, review cases with cardiac consultant, observe cardiac procedures such as electrocardiograms and catheterizations, and attend all seminars and conferences. MEDICINE

140.36. Advanced Clerkship in Emergency Medicine—UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Wang

Advanced clerkship in emergency medicine with extensive hands-on instruction in procedures, decision-making, and management of acute patients. Two shifts spent with paramedics, one-half shift with the central EMS base station/dispatch. An excellent elective for students considering a career in emergency medicine. MEDICINE

140.37. Emergency Medicine—H. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Simon, English

Students evaluate medical, surgical, gynecologic, and non-critical trauma patients under attending supervi-

sion. Attend short teaching conferences held daily, with longer departmental conferences weekly. "Hands-on" training such as suturing, casting and splinting, and airway managing are provided. MEDICINE

140.39. Pulmonary Disease—UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Stulberg

Students participate fully on the inpatient Pulmonary Consult Service, interviewing, examining, presenting, and doing follow-up of their own patients. Attend weekly conferences, receive some experience with procedures (e.g., bronchoscopy), learn pulmonary function interpretation, and do directed reading relevant to their patients. MEDICINE

140.40. Gastroenterology—KP. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Allison, Kaufman, Udkow, Grossman

As a member of the GI Consult team, student will work-up patients, observe and participate in diagnostic and therapeutic procedures, and attend all rounds and GI diversion conferences. MEDICINE

140.41. Gastroenterology—SFGH. (1.5 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. Clinical Toxicology & Pharmacology—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Olson

The Poison Control Center handles over 200 calls per day, many from physicians managing an acute poisoning or drug overdose. Students will learn to use computerized and other poison information resources; participate in discussions of a variety of acute poisonings. MEDICINE

140.43. Rheumatology & Immunology—VA. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Wofsy

This is an introduction to cardiac rheumatology and immunology. The student will participate in inpatient and outpatient care and take part in didactic conferences relating to rheumatology and immunology. MEDICINE

140.45. Endocrine Metabolism—VA. (1.5 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. (1.5 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 Medicine—VA. (1.5 per week) SS1, SS2, Su, F, W, Sp. Prerequisite: Medicine 110.

Pollock

A broad array of acute and chronic renal disease patients are worked up by the student under the direct supervision of the attending physicians. MEDICINE

140.53. Infectious Disease—MZ. (1.5 per week) F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

L. Drew, Mintz

Clinical and laboratory experience providing integrated approach to infectious disease. 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. Attend daily rounds; research opportunities available. MEDICINE

140.55. Acting Internship—C. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110. Limited to fourth-year students.

Busch

Students, under supervision, will evaluate and share in the care of patients admitted to an acute care hospital. Experience includes history and physical examination, diagnostic and treatment planning, and writing orders and progress notes. Attend daily rounds and conferences. MEDICINE

140.56. Geriatric Medicine—MZ. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Luxenberg, Feigenbaum

Students, under supervision, perform consults on hospitalized and clinic patients. They participate in multidisciplinary geriatric assignment, and become acquainted with Geriatric Day Care, Alzheimer's Day Care, and other community programs and resources. MEDICINE

140.57. Cardiology—VMC. (1.5 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. (1.5 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. (1.5 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

140.61. Advanced Medicine Clerkship—VAF. (1.5 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 countersigned by resident. MEDICINE

140.62. Emergency Medicine—MZ. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Laufer

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. (1.5 per week) Su, F, W, Sp.

Anderson

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. (1.5 per week) SS1, SS2, Su, F, W, Sp. Prerequisite: Medicine 110.

D. Perloff, Scheinman

Students receive instruction in reading electrocardiograms, in the use and interpretation of diagnostic procedures such as echocardiography, Holter monitoring, treadmill exercise testing, nuclear medicine, cardiac electrophysiology, and cardiac catheterization. Students attend cardiac and hypertension clinics, CCU rounds, and weekly conferences. MEDICINE

140.66. Internal Medicine—VMC. (1.5 per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Holmes

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. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Grayson

Participation with housestaff 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—VAF-VMC. (1.5 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. (1.5 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 housestaff 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

140.73. Rheumatology & Immunology—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

N. Lane, 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

140.75. Inpatient Medicine—K. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Feigenbaum

Acting internship at this urban community prepaid health plan hospital. Students examine patients, participate in ward rounds, and attend teaching seminars and conferences of the Department of Medicine. MEDICINE

140.77. Endocrinology/Diabetes—Fresno. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

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. (1.5 per week) Su, F, W, Sp.

Hirasuna

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

140.79. Inpatient Medicine—STM. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Lemesh

The student, teamed with a resident, will evaluate and share in the care of patients admitted to a community based hospital. Students will take call, attend teaching rounds and conferences; will attend clinic one afternoon per week. MEDICINE

140.80. GI and Liver Diseases—VMC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Holmes, Arora, Peters

Students will become part of the GI-Liver team. In addition to basic patient evaluation, they will participate in the broad range of diagnostic and therapeutic endoscopic procedures. Participation in an active ambulatory clinic adds to the variety of patients seen. MEDICINE

150.01. Research in Medicine. (1.5 per week) Su, F, W, Sp. Prerequisite: Consent of faculty member in

charge of student's research project 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. (1.5 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

160.04. Med Science & Clinical Problems. (0-1) F, W, Sp. 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

160.06. Chronic Fatigue Syndrome: Fact or Fiction? (1) W. Lecture 1 hour.

Hughes, Rest

This class will meet once a week, and will cover the CDC Case definition, history, epidemiology, diagnosis, treatment, research update, resources, socio-political context, doctor-patient interaction, etc. Guest lecturers will be used. MEDICINE

160.10. Clinical Medical Ethics. (1) F Seminar 1 hour.

Lo

Introduction to clinical medical ethics through discussion of the medical literature. Active class participation and critical reading of articles will be required. Topics will include life-sustaining treatment, dilemmas regarding HIV infection, care of critically ill neonates, and allocation of resources. MEDICINE

170.01. AIDS-HIV: Overview and Update. (2) W. Lecture 2 hours.

Hollander

A preclinical, multidisciplinary overview curriculum surveying the epidemic of AIDS and the human immunodeficiency virus. Basic and clinical sciences and social/psychosocial topics are included. Other than a panel of persons with HIV-AIDS, the course format is by lecture. 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

170.09. Current Topics in Medical Science. (2) F, W, Sp. Seminar 2 hours.

Cox

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. Introduction to Occupational Medicine. (1) F Seminar 1 hour.

Balmes

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. MEDICINE

170.11. Introduction to Environmental Medicine. (1) W. Seminar 1 hour.

Balmes

Introductory course in health issues related to the environment. MEDICINE

170.12. Introduction to Geriatric Medicine. (1.5) W. Lecture 1.5 hours.

Luxenberg

Course covers the physiology and psychology of normal aging and health care problems of the elderly, including functional status and cognitive impairment. Use of medications, health care policies, multidisciplinary geriatric health care teams, and ethics 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

170.18. Principles of Occupational Health. (2) Sp. Seminar 2 hours.

Balmes

This course presents an overview of occupational health, with seminars and site visits. MEDICINE

180. Industrial Toxicology. (2) § F 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

188.03. Economics of Health. (2) § F,W, or Sp. Lecture 2 hours.

P. Lee, Luft

Basic economic concepts and tools as applied to problems in the health care system. Topics to be covered include 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. (1.5) 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 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

411A. Introduction to Molecular Genetics. (4) Su. Lecture 3 hours. Conference 1 hour.

Gitschier, Ganem, Parslow

A general overview of molecular genetics, aimed principally at fellows in clinical departments. MEDICINE

411B. Introduction to Cell Biology. (4) Su. Lecture 3 hours. Conference 1 hour.

Kelly

A brief introduction to contemporary cell biology for clinical fellows. MEDICINE

411C. Laboratory Techniques. (3) Su. Prerequisite: Medical fellows in School of Medicine. Lab: 40 hours/week for 2 weeks.

Welch, Pytella

A short, but intensive, laboratory course in modern laboratory techniques of cell and molecular biology meant to facilitate transition of medical fellows beginning their rotation in basic research laboratories. MEDICINE

420. Intro to Structural Biology. (3) Sp. Lecture 3 hours.

Cohen, Kuntz, Craik

Introduction to structural biology. Focus on understanding protein structure and how protein structure is determined. Implications of protein structure for function. MEDICINE

440. Postdoc Seminar in Health Economics. (4) Sp. Restricted to postdoctoral fellows in RWJ Clinical Scholars Program & NIMH-funded Clinical Sciences Research Training Program. Seminar 4 hours.

Henke

Provides survey of economic methods, models, and empirical findings related to the health care sector. Students will learn to use economic techniques to examine health care problems and policy options. 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.

Woeber

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. (1.5 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. (1.5 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. (1.5 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. (1.5 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 workups, laboratory tests, and consultation. MEDICINE

491. Clinical Medicine. (1.5 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. (1.5 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.

W. Levinson

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

110. Immunology in Pharmacy. (2) Sp. Prerequisite: Biochemistry 120A-B. Required course for students in the School of Pharmacy. Lecture 2 hours.

Brodsky

Lectures on the fundamentals of immunology, drugs in hypersensitivity and immunosuppression. 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. (4) Sp. Prerequisite: Successful completion of all first-year required coursework. Lecture 3 hours. Lab 3 hours.

Lucero

Fundamentals of microbiology for pharmacy students with emphasis on mechanisms of disease production by bacteria, fungi, and viruses. Morphology, physiology, and immunology techniques used in laboratory diagnosis of selected bacterial diseases. Includes exercises in antibiotic susceptibility, disinfection, and sterility. MICROBIOL

150.01. Microbiology Research. (1.5 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.

W. 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

170.02. Case of the Week. (1) F. Prerequisite: Microbiology 100B concurrently. Seminar 1 hour.

W. Levinson

Infectious disease cases are discussed in a problem-solving format. MEDICINE

190A. Med Immunology-Grad StdnTs. (2) § Sp. Prerequisite: Biochemistry 100A-B. Lecture 2 hours for nine weeks. Equivalent to Microbiology 100A and 121.

W. Levinson

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 epidemi-

ology 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. Not offered 1993-94.

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. Molecular and Cellular Immunology. (3) § W. Prerequisite: General knowledge of immunology. Lecture 3 hours.

Brodsky

Topics to be covered: hematopoiesis, structure and genetics of immunoglobulins, lymphocyte surface molecules, T cell receptors, signal transduction, antigen presentation, MHC restriction, tolerance, T cell effector mechanisms, lymphocytes, and autoimmunity. MICROBIOL

208. Molec Biology of Animal Viruses. (1.5) § Sp. Prerequisite: General knowledge of nucleic acid structure and chemistry and multiplication of viruses. Lecture 1.5 hours. Seminar 1.5 hours. Offered in alternate years. Not offered 1993-94.

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. (2) § Sp. Conference 2 hours.

Goodman

Small group tutorial in which topics and correlative reading will be selected 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. (3) § Su, F, W, Sp. Prerequisite: Consent of instructor. Lab 9 hours.

Staff

Lab 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 and faculty. MICROBIOL

221. Graduate Research Seminar. (1) § Sp. Seminar 1 hour.

Staff

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. (1.5 per week) Su, F, W, Sp.

C.B. Wilson

The student will become a member of the housestaff, 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. (1.5 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 chairperson of the department. NEURO SURG

150.01 Research in Neurosurgery. (1-5 per week) Su, F, W, Sp. Prerequisite: Consent of instructor and department. Passing grade in NB Examination Part 1. 40 hours per week.

Staff

Research project under the direction of a member of the faculty. Extensive background reading will be required and discussion of important topics will be held at weekly laboratory and program project research conferences. 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. (1.5 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 Clkshp.

(1.5 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

140.01A-B-C. Advanced Clinical Clerkship. (1.5 per week) Su, F, W, Sp. Prerequisite: Neurology 110 and fourth-year standing. **A:** UC. **B:** SFGH. **C:** VA.

UC Hauser, SFGH Simon, VA Sharp

Students serve as acting interns on the inpatient service. Attendance at departmental clinical rounds, seminars, and conferences is required. NEUROLOGY

140.02. Off-Campus Clerkship. (1.5 per week) Su, F, W, Sp. Prerequisite: Neurology 110.

Hauser

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

140.03. Outpatient Clinical Neurology. (1.5 per week) Su, F, W, Sp. Prerequisite: Neurology 110 and consent of instructor.

Engstrom

Fourth-year students serve as clinical clerks in the outpatient clinics. Emphasis is placed on developing neurological history and examination skills applicable to outpatient problems (i.e., Parkinson's disease) likely to confront the non-neurologist. NEUROLOGY

140.04. Child Neurology. (1.5 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

140.06. Advanced Neurology Clerkship—VA. (1.5 per week) Su, F, W, Sp. Prerequisite: Neurology 110 and consent of instructor.

F. Sharp

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. Neurology Clerkship—Fresno. (1.5 per week) F, W, Sp. Prerequisite: Neurology 110.

Margolin, Felmus

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. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Anatomy 103.

Hauser

Opportunities for research in one of the departmental laboratories by arrangement with the chairperson of the department. NEUROLOGY

150.02. Neuropathology. (1.5 per week) F, W, Sp. Prerequisite: Anatomy 103 and Pathology 102.

R.L. Davis

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

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

Hauser 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.

Hauser 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. (1.5 per week) Su, F, W, Sp.

Hauser, D. Greenberg, F. Sharp

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.

Hauser

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.

Hauser

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 Sharp

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.

Hauser

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. (1.5 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. (1.5 per week) Su, F, W, Sp.

Olney

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. (1.5 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. (1.5 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. (4.5) Su, F, W, Sp.

W. Hoyt

Residents participate in clinical evaluation of patients in preparation for rounds. Clinical teaching in neuro-ophthalmology. NEUROLOGY

Neuroscience

117. Neurobiology. (6) Sp. Prerequisite: First-year Dentistry standing. Lecture 5 hours. Lab 2 hours.

Conference 1 hour.

Sargent, Wentworth, Christie, Steller

Structure and function of the nervous system. The course will cover the fundamentals of neurophysiology and the organization of the nervous system. Emphasis will be placed on the oral cavity. STOMATOL

156. Neurobiology. (6) Sp. Prerequisite: First-year Dental Hygiene standing. Lecture 5 hours. Lab 2 hours. Conference 1 hour.

Sargent, Wentworth, Steller

Structure and function of the nervous system. The course will cover the fundamentals of neurophysiology and the organization of the nervous system. Emphasis will be placed on the oral cavity. STOMATOL

201. Basic Concepts in Neuroscience. (6) § F Lecture 4 hours. Conference 2 hours.

L. Jan, Y.-N. Yan

An interdisciplinary introduction to fundamental aspects of nervous system function. Course emphasizes the ionic basis of neuronal signaling, neurochemistry, the cell biology of the neuron, and mechanisms of neuronal integration. 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 Topics in Neurochemistry and Molecular Neurobiology. (3) § F. Lecture 11 hours. Seminar 2 hours.

Mobley, Levine

Lectures and critical discussion of current research on neurotrophic factors, their receptors and molecular basis of neuronal signal transduction. PHYSIOLOGY

223. Developmental Neurobiology. (3) § W. Prerequisite: Neuroscience 201 and consent of instructor. Lecture 3 hours.

Reichardt, Y.-N. Jan, L. Jan, J. LaVail

Course covers important areas of nervous system development with emphasis on molecular, genetic, and cellular approaches. Much of the course will focus on recent studies using nematodes, *Drosophila*, leeches, and zebra fish. PHYSIOLOGY

225. Neurobiology of Disease. (3) § Sp. Prerequisite: Neuroscience 201 and consent of instructor. Seminar 3 hours.

Mobley, Fields, Rubenstein

Seminar format with students reading and presenting papers in the current literature of neurobiological

disease. Emphasis will be on the physiological and molecular bases of disease. PHYSIOLOGY

230. Biophysics of Membrane Excitability. (3) § W. Prerequisite: Neuroscience 201 & consent of instructor. Seminar 3 hours.

Lansman

Course is designed to acquaint students with analytical methods used in studying excitation in nerve and muscle. Topics include: review of electrical fundamentals, LaPlace transforms, linear cable theory, thermodynamic and kinetic descriptions of electrodiffusion, voltage clamp methods, and Hodgkin-Huxley analysis of nerve excitation. PHYSIOLOGY

231. Synaptic Mechanisms in Peripheral & CNS. (3) § F Prerequisite: Neuroscience 201. Seminar 3 hours.

Nicoll, Malenka

This is primarily a reading course in which recent papers on various aspects of synaptic pharmacology and plasticity in the CNS will be discussed in depth. PHYSIOLOGY

240. Advanced Topics in Integrative Neurobiology: The Vertebrate Retina. (3) § W. Prerequisite: Neuroscience 201. Seminar 3 hours.

Steinberg, Copenhagen

Selected topics in the physiology of the vertebrate retina. Emphasis on the main problem areas of current retinal research as studied by electrophysiological and pharmacological methods. Study of the retina following the path of signal processing from photoreceptor to outer plexiform layer, inner plexiform layer, and the ganglion cell. PHYSIOLOGY

242. The Auditory System (3) § F. Lecture 3 hours.

Merzenich

Course will review in lectures, laboratory demonstrations, and in discussions the state of understanding the peripheral and central nervous system processes underlying hearing and speech perception. PHYSIOLOGY

243. Somatosensory Systems and Pain. (3) § F. Prerequisite: Neuroscience 201 and consent of instructor.

Fields, Merzenich, Levine, Ralston

This is predominantly a lecture and discussion format course. The course will examine the neural basis of somatic sensation including pain and pain modulation. A general theme will be the correlation of information derived from pharmacology, anatomy, physiology, behavior and human studies. Clinical problems will be reviewed insofar as they illustrate important principles or gaps in our understanding of the neurobiology of somatosensory systems and pain. PHYSIOLOGY

244. Motor Systems in Mammals. (3) § Sp. Prerequisite: Neuroscience 201 and consent of instructor. Seminar 3 hours.

Lisberger

Through readings from the literature and background lectures by the instructor, we will survey both classical

and current approaches to understanding the control of motor activity in mammals. PHYSIOLOGY

245. The Limbic System. (1.5) Sp. Prerequisite: Neuroscience 201. Lecture 1 hour for 6 weeks. Seminar 2 hours for 6 weeks.

Stryker, Malenka

Lectures and critical discussion of current research on the limbic system in the mammalian brain and its relationship to behavior. Topics include the neural bases of learning, memory, motivation, and emotion; spatial learning; the meso-limbic reward system; and synaptic plasticity. PHYSIOLOGY

246. Neuroendocrinology. (1.5) § Sp. Prerequisite: Neuroscience 201 or consent of instructor. Lecture 1 hour. Seminar 2 hours.

Dallman, Weiner

Lectures and critical discussion of current research on the hypothalamus and its relationship to vegetative behaviors. Topics include the neural bases and integration of circadian rhythms, hormone secretion, feeding, drinking, and sexual behaviors. 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

140. Integrated Sciences. (3) F. Lecture 3 hours.

M. Engler

Course focuses on microbiological concepts and chemical principles essential to nursing practice. PHYSIOL NURS

141. Anatomy and Physiology. (6) Su. Lecture 5 hours.

B. Peterson

This introductory course integrates human anatomy and physiology of the major organ systems and emphasizes the intimate relationship between structure and function. The course provides the foundation needed to understand human responses to wellness and illness. PHYSIOL NURS

142. Introduction to Nursing. (11) Su. Lecture 3 hours. Patient contact 24 hours.

C. West

Course explores the concepts of health and illness and role of the professional nurse. Focuses on using the nursing process in care of persons across the adaptation and developmental continua. Concurrent laboratory designed to develop skills and knowledge common to the nursing care of adults. PHYSIOL NURS

143. Effective Communication. (3) W. Lecture 3 hours.

P. Underwood

Course reviews selected theories of human interaction and presents principles and techniques of effective communication as they relate to establishing and maintaining a helping relationship. Students use laboratory experience to develop skills in communication and interaction. MENT HLTH COM ADM

144. Nursing Care of Med-Surg Patients. (14.5) F. Prerequisites: N141, N142. Lecture 5 hours. Patient contact 28.5 hours.

C. West

Course focuses on nursing assessment, diagnosis and care of adults with common medical-surgical conditions including problems common to the elderly. Clinical experiences are provided to allow (for development of pertinent knowledge and skills) application of content with clients. PHYSIOL NURS

145. Pathophysiology. (2) F. Prerequisites: N141, N142. Lecture 2 hours.

S. Janson-Bjerklie

Course provides understanding of disease and its treatment as the basis for nursing assessment and intervention. Major disease entities will be explored, utilizing a conceptual organization of the content. PHYSIOL NURS

146. Parent-Child Nursing. (7.5) W. Prerequisites: N140, N141, N142, N144, N145. Lecture 4 hours. Patient contact 10.5 hours.

C. Kennedy

This clinical course in the nursing care of children and families integrates theoretical concepts related to the management of pediatric patients in acute and ambulatory settings. Application of concepts of growth and development of the child and family is included. FAM HLTH

147. Childbearing Families. (7.5) W. Prerequisites: N140, N141, N142, N144, N145. Lecture 4 hours. Patient contact 10.5 hours.

K. Lee

Course focuses on biopsychological concepts forming the basis for normal childbearing events and application to clinical situations. Emphasis is on nursing assessment and management of the woman and fetus during antepartum and intrapartum periods, and new mother and infant during the first postpartum month. FAM HLTH

148. Socio-Cultural Issues in Hlth, Illness. (2) W. Prerequisites: N140, N141, N142, N144, N145. Lecture 2 hours.

R. Staples

Course focuses on significant socio-cultural variations in health and illness, prevention and care that make particular impacts on nursing practice in a variety of settings. Attention will be given to cultural diversity associated with ethnicity and social class. SOC BEH SC

149. Psych/Mental Health Nursing. (5.5) Sp. Prerequisites: N140, N141, N142, N143, N144, N145, N146, N147, N148. Lecture 3 hours. Patient contact 7.5 hours.

P. Underwood, S. Ziehm

Course presents theories of human behavior as they relate to function, alteration, and/or disruption of mental processes; reviews current knowledge related to nursing care, psychiatric treatment, and psychosocial rehabilitation of the identified mentally ill individual and his/her family. MENT HLTH COM ADM

150. Community Health Nursing. (8.5) Sp. Prerequisites N140, N141, N142, N143, N144, N145, N146, N147, N148. Lecture 4 hours. Patient contact 13.5 hours.

A. Dingerson

Course explores application of nursing, family, and community health theory in community health settings, focusing on assessing, diagnosing, planning, implementing, and evaluating community health nursing care with families, groups, and communities. General principles will be applied to specific vulnerable populations. MENT HLTH COM ADM

151. Issues in Nursing. (3) Sp. Prerequisites: N140, N141, N142, N143, N144, N145, N146, N147, N148. Lecture 3 hours.

B. Roberts

Course explores major issues and trends in contemporary nursing and health care delivery as they relate to nursing practice, education, and research. FAM HLTH

152. Community Gerontological Nursing. (1) Sp. Lecture 1 hour.

L. Reif

Course focuses on the elderly person in the community and factors which influence independence. Common problems found in the elderly will be discussed along with an introduction to appropriate assessment/management strategies. An overview of community services will be presented. PHYSIOL NURS

181. Law and the Practice of Nursing. (2) § Sp. Lecture 2 hours.

D. Tennenhouse

Survey of fundamental and critical current issues in law with respect to the theory and practice of nursing. Emphasis 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) § 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) SS1, SS2, F, W, Sp. Lab 3-15 hours.

Staff

Students collaborate in clinical investigation and study special problems related to nursing and health sciences under the direction of faculty. Students may select topics for study related to their area of interest.

198. Supervised Study in Nursing.

(1-5) § SS1, SS2, F,W, Sp. Prerequisite: Consent of instructor. Lab 3-15 hours.

Staff

Student conducts library research and does directed reading under supervision of a faculty member with approval of the chairperson of the department.

199. Laboratory Project in Nursing. (1-5) § SS1, SS2, F,W, Sp. Prerequisite: Consent of instructor. Lab 3-15 hours.

Staff

Student conducts a laboratory research project under direction of a faculty member with the approval of the chairperson of the department.

201. Curriculum & Program Development. (3) § F Prerequisite: Graduate 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 in Nursing. (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.

J. Faucett

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 Frameworks. (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 COMADM

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 COMADM

204. Issues in Hospice Care. (3) § Sp. Prerequisite: Consent of instructor. Lecture 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

205.01. Clinical Knowledge Development. (4) § F Prerequisite: N202A. Lab 6 hours. Seminar 2 hours.

P. Larson

Course defines the nature of advanced clinical practice relevant to the area of focus in the doctoral program. Problems common to selected patients are explored. Phenomena are analyzed to develop knowledge for advanced nursing in clinical and administrative settings. PHYSIOL NURS

205.02. Clinical Knowledge Development. (4) § F Prerequisite: N202A. Lab 6 hours. Seminar 2 hours.

I. Martinson

Course defines the nature of advanced clinical practice relevant to the area of focus in the doctoral program. Problems common to selected patients are explored. Phenomena are analyzed to develop knowledge for advanced nursing in clinical and administrative settings. FAM HLTH

205.03. Clinical Knowledge Development. (4) § F Prerequisite: N202A. Lab 6 hours. Seminar 2 hours.

P. Underwood

Course defines the nature of advanced clinical practice relevant to the area of focus in the doctoral program. Problems common to selected patients are explored. Phenomena are analyzed to develop knowledge for advanced nursing in clinical and administrative settings. MENT HLTH COMADM

206. Nursing Management of Adult Psych Cond. (3) § F Prerequisite: N227 and N219 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 COMADM

207. Clin Nsg Physio. (3-5) § SS1, SS2, Su, F,W, Sp. Prerequisite: Doctoral standing. Lab 3-9 hours. Seminar 2 hours.

Staff

Course is an 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

208.01A. Concept Delineation in Physiological Nursing. (3) § W. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

V. Carrieri-Kohlman

Seminar describes and analyzes phenomena relevant to nursing from theoretical, clinical, and empirical perspectives. Related concepts of interest to nursing are selected from observations in clinical settings and delineated in relation to the selected phenomena. PHYSIOL NURS

208.02A. Concept Delineation in Family Health Care Nursing. (3) § W. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

Staff

Seminar describes and analyzes phenomena relevant to nursing from theoretical, clinical, and empirical perspectives. Related concepts of interest to nursing are selected from observations in clinical settings and delineated in relation to the selected phenomena. FAM HLTH

208.03A. Concept Delineation in Mental Health, Community, and Administrative Nursing. (3) § W. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

Staff

Seminar describes and analyzes phenomena relevant to nursing from theoretical, clinical, and empirical perspectives. Related concepts of interest to nursing are selected from observations in clinical settings and delineated in relation to the selected phenomena. MENT HLTH COMADM

208.01B. Concept Measurement in Physiological Nursing. (3) § Sp. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

P. Larson

Seminar focuses on measurement of selected concepts and their clinical manifestations. Existing measures are examined from theoretical, clinical, and empirical perspectives when the need for new measures is identified. PHYSIOL NURS

208.02B. Concept Measurement in Family Health Care Nursing. (3) § Sp. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

Staff

Seminar focuses on measurement of selected concepts and their clinical manifestations. Existing measures are examined from theoretical, clinical, and empirical perspectives when the need for new measures is identified. FAM HLTH

208.03B. Concept Measurement in Mental Health, Community, and Administrative Nursing. (3) § Sp. Prerequisite: N205.01 or N205.02 or N205.03. Seminar 3 hours.

Staff

Seminar focuses on measurement of selected concepts and their clinical manifestations. Existing measures are examined from theoretical, clinical, and empirical perspectives when the need for new measures is identified. MENT HLTH COM ADM

208.03C. 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.

S. Rankin

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

209. Comparative Research Designs. (3) § F. Prerequisite: Doctoral standing or by consent of instructor. Lecture 3 hours.

M. Dodd, K. Lee

Course critically analyzes the elements of qualitative and quantitative research designs set within the context of the research question to be asked and the existing knowledge in the area.

210. Information Technology and Nursing Care. (3) § Sp. Lecture 3 hours. Lab hours vary.

S. Henry

Course applies research from information technology and selected aspects of nursing care (diagnoses, nursing minimum data set, decision-making) in order to capture patient outcomes for program planning activities. MENT HLTH COM ADM

211A. Introduction to Research. (3) § F. Prerequisite: Elementary statistics or equivalent. Lecture 3 hours.

H. Wilson

Lectures and computer-assisted instructional materials present an overview of the research process, including sections on developing research questions, experimental design, instruments, sampling, and data analysis. Differing views of science will be explored. Course is designed as a competency-based instructional program. PHYSIOL NURS

211.03B. Community Health Research Critique. (3) § Sp. Prerequisite: Consent of instructor,

with preference given to Community Health students. Seminar 3 hours.

M. White

Course is a critical analysis of the published literature in community health. Emphasis is on the appraisal of research design, conclusions and importance to community health 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

211.05B. Critique: Studies in Family Health. (3) § W. Prerequisite: N211A or equivalent or consent of instructor. Seminar 3 hours.

S. Gortner

Course is a critique of research addressing the family and its relationship to the health and illness of family members. Research considered classic in the field will be reviewed, as will contemporary research. FAM HLTH

211.06B. Neuroscience Research Critique. (3) § W. Seminar 3 hours.

Staff

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) § W. Prerequisite: Consent of instructor. Seminar 3 hours.

M. Dodd, P. Halliburton

Course presents 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) § W. Prerequisite: N211A. Seminar 3 hours.

V. Carrieri-Kohlman

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

211.10B. Critique: Studies in Child Health. (3) § W. Prerequisite: N211A or equivalent or consent of instructor. Seminar 3 hours.

I. Martinson

Course is a critique of research addressing the health pediatric client and those experiencing chronic illness. Research considered classic in the field will be reviewed, as will contemporary research. FAM HLTH

211.12B. Occup Hlth Res-Critical Review. (3) § F. Prerequisite: N211A or consent of instructor. Lecture 1 hour. Seminar 2 hours.

J. Lipscomb

Course is a 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. Critique: Ment Hlth Outcome Studies. (3) § W. Prerequisite: N211A or consent of instructor. Lab 3 hours. Seminar 2 hours.

L. Chafetz

Course will criticize outcome studies in psychosocial care of the chronically or severely mentally ill. The intent is to develop research consumerism, through promotion of attitudes, insights, and abilities necessary for critical evaluation and utilization of health-related research. MENT HLTH COM ADM

211.20B. Critique: Studies in Perinatal Care. (3) § W. Prerequisite: N211A or equivalent or consent of instructor. Seminar 3 hours.

D. Affonso

Course critiques research in perinatal health care with a focus on parents and neonates. Research considered classic in the field will be reviewed, as will contemporary research. FAM HLTH

211.21B. Cardiopulmonary Res Critique. (3) § W, Sp. Prerequisite: N211A or consent of instructor. Lecture 2 hours. Lab 3 hours.

B. Drew

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

211.23B. 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 3 hours.

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

211.25B. Research Critique: Trauma/Emergency. (3) § W. Prerequisite: N211A. Seminar 3 hours.

S. Janson-Bjerklie

Course is a critical analysis of studies that explore assessment and management variables in emergency and trauma nursing. Emphasis is on the critique process related to studies for applicability to clinical practice. PHYSIOL NURS

211.27B. Critique: Studies of Sick Children. (3) § W. Prerequisite: N211A, or equivalent, or consent of instructor. Seminar 3 hours.

M. Lynch

Course critiques research addressing the complexities of care for the acute/critically ill child with prolonged and/or complex care needs. Classic and contemporary literature will be analyzed through the critique process. FAM HLTH

211.28B. Critique: Studies in Nurse-Midwifery. (3) § W. Prerequisite: N211A, or equivalent, or consent of instructor. Seminar 3 hours.

J. DeJoseph

Course critiques research addressing the childbearing family and its relation to nurse-midwifery practice. Research considered classic in the field will be reviewed, as will contemporary research. FAM HLTH

211.29B. Critique: Studies in Women's Health. (3) § W. Prerequisite: N211A, or equivalent, or consent of instructor. Seminar 3 hours.

D. Taylor

Course critiques research addressing women's health and health care across the life span. Research considered classic in the field will be reviewed, as will contemporary research. FAM HLTH

211.51C. Clinical Research Methodologies. (3) § Sp. Prerequisite: N211A. Lecture 2 hours. Seminar 1 hour.

N. Stotts

Course provides the opportunity for students to apply research methods in the development of a research proposal. Students will address research of problems significant to their patient population. PHYSIOL NURS

211.53C. Illness Management Research. (3) § F, W, Sp. Prerequisite: N211A, 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

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. Advanced Health Assessment. (2) § F. Prerequisites: Students take this course concomitantly with N400 level Practicum. Lecture 2 hours.

L. Lommel

Course introduces advanced health assessment techniques to evaluate the health status of clients across the lifespan. Focuses on collection of a comprehensive history and physical examination for the adult and child, highlighting changes associated with adolescence, pregnancy, and aging. MENT HLTH COM ADM

271A. Clinical Management in Adult Primary Care. (1-4) § F. Prerequisite: N270 or 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

271B. Clinical Management in Adult Primary Care. (1-4) § W. Prerequisite: Consent of instructor. Lecture 1-4 hours.

E. Hughes

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.

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 nursing process into clinical decision-making. MENT HLTH COM ADM

272. Chronic Illness: Child & Family. (3) § W. Prerequisite: N238A, Anthropology 235, Psychology 205, or consent of instructor. Lecture 3 hours.

D. Weekes

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 content considers systematic assessment and intervention. FAM HLTH

273A. Current Concepts in Occupational Health. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

J. Lipscomb

Course analyzes structure and organization of the occupational health system, regulatory control mechanisms for worker protection, and labor's role in health and safety. Major issues and trends in occupational health are explored. MENT HLTH COM ADM

273B. Current Concepts in Occupational Health Nursing. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

B. Nuchols

Course analyzes structure and organization of the occupational health systems, regulatory control mechanisms for worker protection, and labor's role in health and safety. Major issues and trends in occupational health are explored. MENT HLTH COM ADM

274. Health and Safety Hazards/Workplace. (3) § Sp. Lecture 2 hours. Lab 3 hours.

B. Nuchols

Course introduces principles of industrial hygiene and safety for identification of chemical, biologic, physical, ergonomic, and safety hazards of work. Students will identify environmental monitoring methods, select health surveillance and safety measures, and discuss methods of control exposures and injuries. MENT HLTH COM ADM

275A. Physiological Basis for Nursing. (1-3) § F. Lecture 1-3 hours.

M. Engler

Course studies 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.

M. Engler

Course studies 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) § Sp. Lecture 2 hours.

D. Affonso

Course is a study of the major disease processes encountered in the neonate and their relevance to nursing practice. The course will address etiology, manifestations and treatment during the acute phase of illness. 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. Assessment/Management of Psychosocial Problems. (3) § Sp. Prerequisite: N270 or consent of instructor. Lecture 3 hours.

J. Faucett

Course focuses on assessment and management of psychosocial problems and psychiatric conditions. Course is designed to assist students in determining patients for management and for referral and to develop beginning skills in managing selected patients. MENT HLTH COM ADM

278. Nursing Science History & Philos. (4) § F. Prerequisite: Doctoral-level standing or consent of instructor. Lecture 2 hours. Seminar 2 hours.

S. Gortner

Course is an analysis of history and philosophy of nursing science in the United States and abroad, addressing origins of scientific questions and activity, contemporary philosophic viewpoints, and debates currently ongoing regarding design, conduct, and outcomes of nursing research. FAM HLTH

279A. Family Nursing Theory. (3) § F. Lecture 2 hours. Seminar 2 hours every other week.

C. Chesla

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 or consent of instructor. Lecture 2 hours. Seminar 1 hour.

C. Chesla

Course integrates family theoretical and therapeutic concepts to focus on nursing assessment and intervention strategies for family problems in health and illness. FAM HLTH

279C. Cultural Issues in Family Health. (2) § Sp. Prerequisite: N 279B and consent of instructor. Lecture 1 hour. Seminar 1 hour.

Staff

Course involves analysis of family, cultural, and behavioral theories and issues leading to clinical intervention in family primary care. FAM HLTH

280. Intl Primary Health Care. (2) § W. Seminar 2 hours.

J. Lipson

Seminar is a discussion of assigned readings on the political economy and practical implementation of community-oriented primary health care programs in the international realm, including discussion of the nurse's role in such programs. MENT HLTH COM ADM

281A. Res Sem: Hlth & Its Correlates. (2) § W. Prerequisite: Enrollment in Ph.D. program in nursing or consent of instructor. Seminar 2 hours.

S. Weiss

Seminar critically examines theory and research focused on personal and environmental factors as they influence health and illness. Concepts of person, environment, and health will be analyzed and discussed as they pertain to the development of nursing science through research. FAM HLTH

281B. Res. Sem: Hlth & Its Correlates. (3-4) § Sp. Prerequisite: N281A and enrollment in Ph.D. program in Nursing, or consent of instructor. Lab 3 hours. Seminar 3 hours.

I. Martinson

Course critically examines faculty research investigating nursing science from the perspective of person, environment, and health. PHYSIOL NURS

282. Geriatric Pharmacology (3) § W. Lecture 3 hours.

S. Echaves, C. Deitrich

Course explores clinical management of pharmacology and integration of drug therapy into the therapeutic plan and nursing care of older adults. The course focuses on drugs commonly used in multiple settings for the treatment of chronic disease and minor acute illnesses. PHYSIOL NURS

283A. Pediatric Normal/Abnormal Function. (1-3) § F. Lecture 1-3 hours.

M. Lynch

Course studies physiologic function of the cellular, neurological, and respiratory systems as modified by developmental needs, system immaturity, and pathophysiological processes in the pediatric population. Implications for pediatric nursing practice will be addressed in relation to normal/abnormal system function. FAM HLTH

283B. Pediatric Normal/Abnormal Function. (1-3) § W. Lecture 1-3 hours.

M. Lynch

Course studies physiologic function of the cardiovascular, hematological, and immunological systems as modified by developmental needs, system immaturity, and pathophysiological processes in the pediatric population. Implications for pediatric nursing practice will be addressed in relation to normal/abnormal system function. FAM HLTH

283C. Pediatric Normal/Abnormal Function. (1-3) § Sp. Lecture 1-3 hours.

M. Lynch

Course studies physiologic function of the gastrointestinal, renal and endocrine systems as modified by developmental needs, system immaturity, and pathophysiological processes in the pediatric population. Implications for pediatric nursing practice will be addressed in relation to normal/abnormal system function. FAM HLTH

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

make intra- and extra-oral dental radiographs; chart and present all findings; function as a team member in delivery of treatment of dental disease with the dental students and faculty. Emphasis is on the first patient visit for routine or emergency care to the dental school. STOMATOL

189. Acute Dental Care Clerkship. (1-10) F,W, Sp. **Danford**
Advanced instruction and clinical experience in the diagnosis and treatment of acute dental problems. STOMATOL

Oral & Maxillofacial Surgery

109. Clinical Oral Surgery. (0-5) SS, F,W, Sp. Prerequisite: Third-year standing. For senior rotation, student must have passed Oral & Max. Surgery 120, 130.01, 130.02, 130.03, 131, and 132 or have consent from the course supervisor. Clinic variable.

R. Smith, Gordon, Pogrel
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. ORAL & MAX SURG

120. Local Anesthesia. (0.5) Sp. Lecture 1 hour.
R. Smith, Gordon, Perrott
Course covers local anesthetics and techniques as they pertain to the dentition and oral cavity. ORAL & MAX SURG

130.01. Dentoalveolar Surgery. (1) SS. Prerequisite: Anatomy 117.01, 117.02, and Microbiology 116. Lecture 1 hour. Library research 1 hour.
Gordon, R. Smith, Perrott
An introduction to the basic principles of exodontia, dentoalveolar surgery, postoperative care, hemorrhage control, and management of common complications. ORAL & MAX SURG

130.02. Pain & Anxiety Control. (1) F Prerequisite: Anatomy 117.01, 117.02, and Microbiology 116. Lecture 1 hour.
Gordon, R. Smith, Perrott
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. ORAL & MAX SURG

130.03. Diagnosis & Treatment of Oro-facial Pain. (1) W. Prerequisite: Anatomy 117.01, 117.02, and Microbiology 116. Lecture 1 hour.
R. Smith, Gordon, Kaban
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. ORAL & MAX SURG

131. Reconstructive Oral & Maxillofacial Surgery & Implantology. (1) Sp. Prerequisite: Oral &

Max. Surgery 130.01, 130.02 and 130.03 or consent of instructor. Lecture 1 hour.

R. Smith, Kaban, N. Gordon
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. ORAL & MAX SURG

132. Medical Emergencies & CPR. (1) F Prerequisite: Third-year dental standing.

R. Smith
This course covers the prevention and management of medical emergencies in the dental office. There is discussion on the management of the medically compromised patient. CPR training is also provided. ORAL & MAX SURG

152. Oral & Maxillofacial Surgery. (0.5) F Restriction: This course is offered for first-year dental hygiene students. Lecture 1 hour.

R. Smith, Walsh
This course offers the same lectures about prevention and management of common medical emergencies as are given to third-year dental students (OMFS 132). However, the prerequisites do not apply, and the academic standards are adjusted to the student's background. OMFS 152 does not include the CPR experience. ORAL & MAX SURG

189.04. Adv Clin Oral Surgery & Implantology. (0-16.5) F,W, Sp. Prerequisite: Fourth-year standing and approval of department chairperson.

R. Smith, Gordon
Clerkships at UC, affiliated or other institutions. Students participate in oral surgery care of ambulatory and hospitalized patients and attend seminars and conferences. ORAL & MAX SURG

198. Supervised Study. (1-5) F,W, Sp. Library research 3-15 hours.
Perrott & Staff
Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. ORAL & MAX SURG

199. Laboratory Project. (1-5) F,W, Sp. Prerequisite: Approval of laboratory project by department chairperson. Lab 3-15 hours.

Kaban & Staff
A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. ORAL & MAX SURG

200. Interdisc Clin Correlations. (1.5) § Sp. First-year students enrolled in postgraduate professional programs in good academic standing. Lecture 2 hours.
Pogrel

Course focuses on critical analysis of theoretical, basic, and clinical concepts underlying the assessment and management of problems involving orofacial diseases, deformities, and dysfunctions. The applica-

tion of research findings to clinical practice is stressed. ORAL & MAX SURG

410. Advanced Techniques in Pain Control. (1) F Prerequisite: Two-week anesthesia rotations. Seminar 1 hour.

Koppe
The trainees will attend seminars in the pharmacology and physiology of commonly used pain control medications. ORAL & MAX SURG

419. General Dentistry in the Operating Room. (1) Su, F,W, Sp. Patient contact 4 hours.

Weisman
The trainees will provide general dental services in the operating room for patients requiring general anesthesia. ORAL & MAX SURG

470. Risk Management in Oral and Maxillofacial Surgery. (1) Sp. Prerequisite: Enrollment in the Oral and Maxillofacial postgraduate training program. Lecture 2 hours.

Pogrel & Staff
Course reviews malpractice insurance, risk management, and oral and maxillofacial procedures that are at high risk for litigation. ORAL & MAX SURG

471. Applied Surgical Anatomy. (1) F,W, Sp. Prerequisite: Limited to interns and residents. Lab 3 hours.

Pogrel, Perrott
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. ORAL & MAX SURG

473. Orthognathic Surgery Seminar. (1) F,W, Sp. Prerequisite: Enrollment in oral & max. surgery residency or general practice residency program. Seminar 1 hour.

Kaban, Pogrel, Perrott
Residents will participate in evaluation and defining treatment options for patients with facial and dental deformities. ORAL & MAX SURG

474. Oral & Max Surgery Seminar. (1) F,W, Sp. Prerequisite: Limited to interns and residents. Seminar 1 hour.

Perrott, Pogrel, R. Smith, N. Gordon, Dodson, Kaban
Seminar includes presentation of case studies, literature review, clinical pathology presentations, and occasional guest lectures. ORAL & MAX SURG

475. Adv Clin Oral & Max Surgery. (1.5 per week) Su, F,W, Sp. Prerequisite: Limited to oral & max. surgery residents. Hospital and clinic 40 hours.
Kaban & Staff

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 administrative, teaching and clinical responsibilities. ORAL & MAX SURG

476. Clinical Methods. (4) Su. Prerequisite: Enrollment in a postgraduate specialty program or consent of instructor. Lecture 2 hours. Patient contact 2 hours.

Pogrel & Staff
A history, physical, and diagnosis course for patients admitted to a hospital or surgicenter. Module 1 will consist of a didactic course, and module 2 will be a lab session where students master the techniques of clinical examination on each other. ORAL & MAX SURG

477. Clinical Methods II. (1-2) F Prerequisite: Completion of OMFS 476 and approval of course director. Restricted to students enrolled in a postgraduate specialty program. Lecture 2 hours, patient contact 4 hours, for 4-6 weeks.

Pogrel, Perrott
Physical examination of hospitalized patients demonstrating a wide range of physical signs and symptoms. ORAL & MAX SURG

478. Oral & Maxillofacial Surg Practice Mgmt. (1) F Prerequisite: Enrollment in a postgraduate specialty program or consent of instructor. Lecture 2 hours.

Pogrel, Staff
Provides OMFS residents a broad spectrum of practice management information such as association memberships, disability insurance, loans, OSHA requirements, computers, and billing. ORAL & MAX SURG

489. Advanced General Dentistry in the Hospital. (1) Su, F,W, Sp.

Pogrel, Grimaldi, and Staff
Under direct faculty supervision, the trainee will provide dental consultation to hospitalized patients, treat medically compromised patients in the operating room, provide routine and complex oral surgery services utilizing conscious sedation and other pain control techniques. ORAL & MAX SURG

489.01. Clinical Oral Surgery. (1) F,W, Sp. Prerequisite: Enrollment in general practice residency or advanced education program in general dentistry. Clinic 3 hours.

R. Smith
Course is designed to teach dentoalveolar surgery, inhalation and intravenous sedation to residents in the oral surgery clinic. The trainee takes responsibility for care of the oral surgery patient including preoperative evaluation, surgery planning, and postoperative care. ORAL & MAX SURG

489.10. Advanced General Dental Care in the Hospital. (1) Su, F,W, Sp. Restriction: AEGD students enrolled in the second-year program.

Pogrel, Grimaldi, and Staff
This course will provide supervision of the trainee in the evaluation and care of the dental patient on the consultation, surgical, and outpatient services of the hospital. ORAL & MAX SURG

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

170.09. Clinicopathological Weekly Case. (1) W, Sp. Prerequisite: Pathology 101, enrolled in Pathology 102/103. Restriction: Second-year medical students. Seminar 1 hour.

Margaretten, Isenberg.

A weekly case discussion conference at which students will generate a differential diagnosis, examine gross and microscopic pathologic specimens, and discuss the pathophysiology of the case. PATHOLOGY

170.10. Immunological Mechanisms in Human Disease. (1.5) F Prerequisite: one year basic science courses (graduate, medical, or dental) or consent of instructor. Lecture 1 hour. Seminar 0.5 hour.

McKerrow

An introductory course in immunopathology and clinical immunology that will review how basic immunological research is applied to diagnosing and understanding human disease. Topics will include transplant immunology, immunoparasitology, immune deficiency diseases, tolerance, and autoimmune diseases. PATHOLOGY

170.11. Problems of Medical Delivery in White Androcentric Society. (1) W. Seminar 1 hour.

Stern

Feminist readings: how language can be a tool of oppression; how power structure of society maintains hegemony by defining "pathology"; how women, people of color, and gays are marginalized in this context. Explores how doctor-patient dialogue interferes with medical care. PATHOLOGY

180.01. General Pathology. (3) F Prerequisite: Anatomy 118. Lecture 3 hours.

Stern

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

240. Concepts in Parasitic Diseases. (4) § W. Lecture 2 hours. Seminar 2 hours.

Bainton, Sakanari, Deneris

This course is for students interested in learning current issues on parasitic diseases (drug design, public health aspects, biochemical parasitology). Invited speakers give seminars on their area of expertise. Students evaluate papers relevant to concepts presented by the speakers. 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 MSTP 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.

Ferrell

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 pathological 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. (1.5 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

130B-C. Pedodontic Procedures-UC. (1, 2) W, Sp. Prerequisite: Satisfactory completion of Operative Dentistry 125 A-B-C. Lecture W. 1 hour; Sp. 2 hours

Braham

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

139. Clinical Rotation. (0-1) Su, F, W, Sp. Prerequisite: Third-year standing. Clinic 3 hours per week.

Braham and Staff

This 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

149. Advanced Clinical Rotation-UC & CHMC. (0-2) Su, F, W, Sp. Prerequisite: Fourth-year standing and satisfactory completion of Restorative Dentistry 139. Clinic 6 hours per week.

Braham, and Staff

Oral examination, treatment planning, and treatment of children, including behavioral management. Time will be spent at Pediatric Dental Clinics at UCSF and Children's Hospital Medical Center, Oakland. Course will involve clinic, seminar, and treatment in hospital operating room with general anesthetic. 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.

Rothman 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.

M. Morris and Staff

Oral examination, treatment planning, treatment of children including behavioral management. Time is spent in the Pediatric Dentistry Clinic at UCSF. The course involves clinical training, seminars, and treatment in the hospital operating room under general anesthesia. 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.

M. Morris

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.

M. Morris

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.

M. Morris 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.

M. Morris 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. (1.5-1.5-1.5-1.5-1.5) F,W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Seminar 1 hour. Clinic 1.5 hours.

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.

M. Morris 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. G DEVEL
177.11A-B-C-D-E. Conscious Sedation. (1.5-1.5-1.5-1.5-1.5) F,W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor

Lecture 1 hour. Clinic 1.5 hours. **M. Morris 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.

M. Morris 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-CHMC. (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

180.02A-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

186. Adv Pediatric Dent Seminars (1) F,W, Sp. Prerequisite: Completion of third-year Pediatric Dentistry Lecture Course 130. Approval of instructor in charge of course. Seminar 1 hour for 8-10 weeks.

Ramos

Seminars on advanced pediatric dentistry, covering behavior and behavioral management techniques, advances in pediatric dental restorative techniques and materials, dental management of the special patient, preventive orthodontics. Emphasis on literature reviews. Course is of particular interest for students interested in the specialty of Pediatric Dentistry. GR DEVEL

410. Advanced Pediatric Dentistry (1) F Lecture 1 hour.

Katz

This lecture series will focus on behavior management of children in the outpatient and inpatient settings. GR DEVEL

Pediatrics

100. Medical Genetics. (2) F

Epstein, Packman, Golbus

This course will explore the role of genetic factors in the causation of human diseases, particularly those genetically influenced disorders which are most frequent in occurrence, and approaches to the diagnosis, management, and counseling of genetic disorders. PEDIATRICS

110. Ped Core Clerkship-UC-SFGH-L-C. (1.5 per week) Su, F,W, Sp. Prerequisite: Core curriculum in basic sciences.

Loeser

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

140.01A. Ambulatory Pediatrics-UC. (1.5 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 (1.5 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. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Gerdson

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 Clkshp-CHMC. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Gerdson

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 Clkshp-KP. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Applebaum

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 Clkshp-K. (1.5 per week) Su, F,W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Applebaum, Mohr

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Phibbs, Sola

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. (1.5 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

140.01M. Pediatric Critical Care—UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. One student per rotation.

Soifer and Staff

Students follow selected patients in the Pediatric Intensive Care Unit and participate in patient presentations, management conferences, and teaching rounds. Emphasis is on cardiovascular and pulmonary physiology in management of critically ill pediatric patients. Students become familiar with relevant literature concerning problems of patients being followed. PEDIATRICS

140.01N. Adv Inpatient Pediatrics (1.5/wk) Su, F, W, Sp. Prerequisite: Pediatrics 110, Medicine 110. Restricted to 1-2 students per block.

Shapiro

To provide exposure to typical pediatric inpatients in a setting where the student assumes primary responsibility for initial evaluations, diagnostic procedures, and ongoing management of patients. Students are assigned patient work-ups, participate fully in team work and teaching rounds, attend conferences, and are on night call with the resident. PEDIATRICS

140.02. Off-Campus Clerkship. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Shapiro

Clinical clerkship in off-campus hospitals approved by the chairperson of the department and the dean. PEDIATRICS

140.03. Outpatient Pediatrics—VMC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Bayatpour

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Open to UCSF students only.

Van Hare

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor. Open to UCSF students only.

L.P. Smith and Staff

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

140.07. Developmental Pediatrics in Fresno. (1.5 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. (1.5 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

140.10. Pediatric Hematology/Oncology—UC-SFGH-CHMC. (1.5 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 outpatient clinics, ward rounds, 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Gerdson, Hardy

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. (1.5 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—VCF. (1.5 per week) Su. Prerequisite: Medicine 110, Pediatrics 110, and consent of instructor.

Simon

Students work in a Diabetes Summer Camp learning the clinical management of diabetes. Students have an opportunity to participate in the operation of the camp program and in the treatment of diabetes in children, adolescents, and young adults. PEDIATRICS

140.15. Oncology—UC. (1.5 per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Ablin, K. Matthay, 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. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

C. Epstein, M. Golabi, S. Packman

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

140.21. Pediatric Pulmonary & Allergy. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Cropps, Shames

Students participate in the activities of the pulmonary and allergy service, in the outpatient and inpatient settings, as well as conferences, journal clubs, etc. The course will emphasize clinical experience with common pediatric pulmonary problems, e.g., asthma, cystic fibrosis. PEDIATRICS

140.26. Comprehensive Pediatric Care—KP. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Shum

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Shum

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

140.30. Gastroenterology & Nutrition. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Heyman, Thaler

tudents

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 Clerkship—VMC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Bayatpour

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

140.33. Pediatric Immunology/Rheumatology. (1.5 per week) Su, F, W, Sp. Prerequisite: Pediatrics 110 and 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. (1.5 per week) Su, F, W, Sp. Prerequisite: 4th-year standing.

Curry

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 (1.5 per week) Su, F, W, Sp. Prerequisite: Pediatrics 110.

S. Kohl

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

140.37. Clinical Clerkship in Adolescent Medicine. (1.5 per week) Su, F, W, Sp. Prerequisite: Completion of basic clinical clerkships. Open to fourth-year medical students only.

Irwin, Shafer

Clinical rotation on outpatient/inpatient adolescent medical service. Clinical experience will include general adolescent clinic, adolescent gynecology clinic, and inpatient consultation on adolescent medical and psychiatric wards. PEDIATRICS

140.38. Behavioral & Developmental Pediatrics. (1.5/week) Su, F, W, Sp. Prerequisite: Pediatrics 110 and consent of instructor. Lecture 1 hour, Conference 10 hours, clinic 4 hours.

Tanner

Students are included in all phases of a comprehensive evaluation for a child with school and learning problems. Physical, neurological, psychological, speech and language, and educational assessments as well as child and family interviews provide a truly biopsychosocial perspective. PEDIATRICS

150.04. Research in Pediatrics-UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Shapiro 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.

Shapiro

Students prepare case presentations weekly from patients on the pediatrics 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. (1.5 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

180.01A-B-C-D. Adolescent Development. (2-2-2-2) § 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. (1.5) 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. (1.5) 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. (1.5) 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, F, 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, and 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. (1.5) 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, and hospitalization. Supervised experiences at daycare centers and schools. Reading assignments. PEDIATRICS

423. Child Development Literature Seminar. (1) F, W, Sp. Prerequisite: Graduate-level student in health sciences and consent of instructor. Seminar 1.5 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. (1.5 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 (1.5 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. (1.5 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. (1.5 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 (1.5 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. (1.5 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

130. Periodontal Therapy. (1) Su. Prerequisite: Perio 129. Lecture 1 hour.

Levine

Introduction to the diagnosis and treatment of periodontal diseases. Emphasis will be placed on examination of the patient, diagnosis and classification of diseases of the periodontium, and treatment planning. The rationale and techniques for treatment of gingivitis and early chronic periodontitis will be discussed. STOMATOL

131. Periodontal Therapy. (1) F. Prerequisite: Perio 130. Consent of instructor. Lecture 1 hour.

Levine

Diagnosis and treatment of periodontal diseases, acute lesions, less common disease of the periodontium, and moderate to advanced periodontitis. Emphasis on diagnosis and treatment planning, considerations for specialty referral when appropriate. Rationale and techniques for treatment of moderate to advanced chronic periodontitis. STOMATOL

132. Periodontal Therapy. (2) W. Prerequisite: Perio 131. Lecture 2 hours.

Levine

Surgical periodontics and rationale for periodontal therapy. Emphasis will be placed on the rationale for various surgical modalities of treatment for periodon-

tal diseases. Discussion of controversial treatment programs and medicolegal aspects of periodontal therapy will be included. STOMATOL

139. Clinical Periodontal Therapy. (0-4) Su, F, W, Sp. Prerequisite: Perio 129. Clinic 3 hours. Seminar 1 hour.

Levine

Treatment of a variety of periodontal diseases under the direct supervision of faculty. Small seminar and discussion groups will review diagnosis and treatment modalities. STOMATOL

149. Clinical Periodontal Therapy. (0-4) Su, F, W, Sp. Prerequisite: Perio 139. Clinic 12 hours.

Levine

Treatment of a variety of periodontal diseases in a general practice environment under the direct supervision of faculty. STOMATOL

162. Periodontal Therapy. (1) W. Prerequisite: Perio 161. Lecture 1 hour.

Levine

Surgical periodontics and rationale for periodontal therapy. Emphasis will be placed on the rationale for various surgical modalities of treatment for periodontal diseases. Discussion of controversial treatment programs and medicolegal aspects of periodontal therapy will be included. STOMATOL

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. STOMATOL

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. STOMATOL

180. Periodontics in General Practice. (1) W. Lecture 1 hour.

Nathan

Implementation of the skills and knowledge of periodontology in the private practice environment. STOMATOL

180.01. Advanced Perio Lit. (1) F. Prerequisite: Perio 130 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. STOMATOL

180.02. Advanced Perio Lit. (1) W. Prerequisite: Perio 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. STOMATOL

180.03. Advanced Perio Lit. (1) Sp. Prerequisite: Perio 132 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. STOMATOL

181. Perio Surgical Techniques. (1) F. Prerequisite: Perio 130 or 131 or 132 and consent of instructor. Lecture 1 hour.

Levine

Surgical techniques are presented which may be used to treat lesions occurring in the hard and soft tissues of the periodontium. STOMATOL

182. Multidisciplinary Case Management (1) W. Prerequisite: Periodontology 132. 2 hours/week over 5 sessions.

Engert, Pasquinelli

An introduction to the concept of comprehensive dental care through the integration of the clinical disciplines. The relationship between periodontics, orthodontics, and restorative dentistry will be emphasized. Predictable long-term results are the therapeutic objective of this approach. STOMATOL

189.01. Clinical Periodontics. (0-9) F, W, Sp. Prerequisite: Periodontology 109. Clinic variable.

Levine

Continuation of clinical experience beyond the level of Periodontology 109. STOMATOL

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

Armitage, Johnson, Richards, Bramanti, Levine, Taggart

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

199. Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Perio 109.

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the division. STOMATOL

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. STOMATOL

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 re-

viewed and evaluated. Other instructors are invited to participate. STOMATOL

401. Examination & Treatment Planning. (1) F. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor.

Taggart

Lectures on examination and treatment planning. STOMATOL

401.01 Structure and Physiology of the Peridontium. (2) F. Prerequisite: Enrollment in postgraduate specialty program. Lecture 2 hours.

Ryder

Advanced study in the oral tissues, with emphasis on their histophysiological aspects. STOMATOL

404. Applied Anatomy. (1) Sp. Prerequisite: Enrollment in postgraduate specialty program. Lecture 1 hour.

Ryder

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

406.01. Hospital Anesthesiology. (6) Su. Prerequisite: Consent of instructor. Seminar 1 hour. Clinic 16 hours.

Taggart

Practical course in operating room anesthesia. Instruction in hospital administration, physical and preanesthesia 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. STOMATOL

406.02. Hospital Periodontics. (4) F. Prerequisite: Perio 419.01. Lecture 4 hours.

Taggart

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. STOMATOL

406.03. Hospital Periodontics. (4) W. Prerequisite: Perio 419.02. Lecture 4 hours.

Taggart

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. STOMATOL

406.04. Hospital Periodontics. (4) Sp. Prerequisite: Perio 419.03. Lecture 4 hours.

Taggart

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. STOMATOL

413.01. Treatment Planning & Surgery. (1) F. Seminar 1 hour.

Taggart

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. STOMATOL

413.02. Treatment Planning & Surgery. (1) W. Seminar 1 hour.

Taggart

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. STOMATOL

413.03. Treatment Planning & Surgery. (1) Sp. Seminar 1 hour.

Taggart

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. STOMATOL

413.04. Treatment Planning & Surgery. (1) SS1. Seminar 1 hour.

Taggart

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. STOMATOL

416. Advanced Periodontology. (0-2) Su, F, W, Sp. Seminar 1 hour.

Levine

Each student will attend 20 literature-review sessions on topical issues in periodontology. STOMATOL

416.01. Original Investigation. (1-5) F. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor. Lab 3-15 hours.

Armitage

Original research under the supervision of a mentor. STOMATOL

416.02. Original Investigation. (1-5) W. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor. Lab 3-15 hours.

Armitage

Original research under the supervision of a mentor. STOMATOL

416.03. Original Investigation. (1-5) Sp. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor. Lab 3-15 hours.

Armitage

Original research under the supervision of a mentor. STOMATOL

419.01. Clinical Periodontics. (5) F Prerequisite: Enrollment in postgraduate specialty program. Clinic 15 hours.

Taggart
Clinical procedures in periodontology therapy. STOMATOL

419.02. Clinical Periodontics. (5) W Prerequisite: Enrollment in postgraduate specialty program. Clinic 15 hours.

Taggart
Clinical procedures in periodontology therapy. STOMATOL

419.03. Clinical Periodontics. (5) Sp. Prerequisite: Enrollment in postgraduate specialty program. Clinic 15 hours.

Taggart
Clinical procedures in periodontology therapy. STOMATOL

419.04. Clinical Periodontics. (5) SS1. Prerequisite: Enrollment in postgraduate specialty program. Clinic 15 hours.

Taggart
Clinical procedures in periodontology therapy. STOMATOL

423.01. Adv Treatment Planning & Surgery. (1) F Seminar 1 hour.

Taggart
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. STOMATOL

423.02. Adv Treatment Planning & Surgery. (1) W Seminar 1 hour.

Taggart
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. STOMATOL

423.03. Adv Treatment Planning & Surgery. (1) Sp. Seminar 1 hour.

Taggart
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. STOMATOL

423.04. Adv Treatment Planning & Surgery. (1) SS1. Seminar 1 hour.

Taggart
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. STOMATOL

429.01. Periodontal Therapy. (6) Su. Prerequisite: Perio 419.01 or 419.02 or 419.03 or 419.04. Clinic 18 hours.

Taggart
Clinical procedures in periodontal therapy. This course is an enlargement on earlier clinical experience. STOMATOL

429.02. Periodontal Therapy. (6) F Prerequisite: Enrollment in postgraduate periodontal therapy. Clinic 18 hours.

Taggart
Clinical procedures in periodontal therapy. STOMATOL

429.03. Periodontal Therapy. (6) W Prerequisite: Perio 429.02. Clinic 18 hours.

Taggart
Advanced surgical techniques in management of periodontal lesions. STOMATOL

429.04. Periodontal Therapy. (6) Sp. Prerequisite: Perio 429.03. Clinic 18 hours.

Taggart
Advanced surgical techniques in management of periodontal lesions. STOMATOL

Pharmaceutical Chemistry

111. Organic Chemistry. (2) F Lecture 2 hours.

Ketcham
Survey of basic concepts and topics in pharmaceutical chemistry, including acid/base behavior, stereochemistry, reaction mechanisms, carbohydrates, amino acids, and peptides. PHARM CHEM

112. Organic Chemistry. (2) W Prerequisite: PC 111. Lecture 2 hours.

Miller
A continuation of PC 111 with emphasis on oxidation/reduction reactions, lipids, heterocyclic compounds, molecules containing sulfur and phosphorus and biopolymers. PHARM CHEM

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) W Prerequisite: Pharmaceutical Chemistry 120. Lecture 3 hours.

Gibson
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. Antibiotics/Anticancer Drugs. (2) F 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

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

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

201A. Basic Principles of Medicinal Chemistry. (3) § F Lecture 3 hours.

Wang
Introduction to basic principles of medicinal chemistry, with focus on physicochemical aspects of drug-target interactions, structure and biology of drug receptors, drug metabolism-bioactivation, and pharmacokinetics and drug targeting. PHARM CHEM

201B. Medicinal Chemistry & Pharmacology of Major Drug Classes. (2) § W Lecture 2 hours.

Sadec

A review of major drug classes with application of the basic principles of medicinal chemistry and pharmacology. PHARM CHEM

202A. Topics in Protein Structure. (2) § W Prerequisite: Consent of instructor. Offered in alternate years (alternates with 202B). Not offered 1993-94. Lecture 2 hours.

Kuntz, Cohen
Principles and recent advances in protein structure, including experimental and theoretical approaches. PHARM CHEM

202B. Topics in Nucleic Acid Structure. (2) § W Prerequisite: Consent of instructor. Offered in alternate years (alternates with 202A). Offered 1993-94. Lecture 2 hours.

Shafer, Shetlar
Principles and recent advances in nucleic acid structure, including experimental and theoretical approaches. PHARM CHEM

204. Introduction to Computer Programming. (3) § W Prerequisite: Consent of Instructor. Lecture 3 hours.

Ferrin
An introduction to computer programming using the C language and the UNIX operating system. During the course, students learn to write, test, and debug programs of increasing complexity. Emphasis is on the basic principles in writing well-structured and modular code. PHARM CHEM

205. Molecular Biochemistry. (3) § Sp. Lecture 3 hours.

Craik, Hawkes, Brodsky
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

206. Laboratory Rotation in Pharmaceutical Chemistry. (1-5) § F,W,Sp. Prerequisite: Consent of instructor. Lab 3-15 hours.

Staff
A laboratory rotation course to familiarize new departmental graduate students with various approaches to research in the pharmaceutical sciences. PHARM CHEM

213. Kinetics of Drug Absorption & Disposition. (3) § F Prerequisite: Chemistry 115. Calculus background is recommended. Lecture 2 hours. Conference 2-3 hours.

Oie
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. Lab 3 hours.

Benet
Advanced consideration of pharmacokinetics including multicompartement 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

217. Fundamentals of Targeted Drug Delivery. (2) § Sp. Prerequisite: One quarter of physical chemistry, kinetics and pharmacology, or consent of instructor.

Hunt
The physical, chemical, biotechnological, and other techniques that are proposed to deliver active molecules to specific target sites in vivo are selectively explored in conjunction with toxicological motivations for achieving targeted drug delivery. Feasibility and optimization are discussed. PHARM CHEM

219A. Enzymology. (3) § W. Lecture 3 hours. Offered in alternate years. Not offered 1993-94.

Santi, Kenyon
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

219B. Enzyme Mechanisms. (3) § Sp. Lecture 3 hours.

Santi, Kenyon
In-depth examination of specific enzyme reactions or systems, with emphasis on structure-function. PHARM CHEM

220. Research Conf in Pharmaceutics. (1) § F,W, Sp. Lecture 1 hour.

Upton, Hunt
A program involving the presentation of core material in pharmaceutical chemistry in the pharmaceutics 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.

Brodsky, Peng
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.

Kuntz
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. Offered 1993-94.

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. Nuclear Magnetic Resonance. (3-4) § W, Sp. Prerequisite: undergraduate physics or physical chemistry. Chemistry 262 is recommended. Lecture 3-4 hours.

T. James
Theory and application of nuclear magnetic resonance. Following a basic core of lectures, lecture modules may be selected covering high-resolution two-dimensional NMR, magnetic resonance imaging, and in vivo magnetic resonance spectroscopy. PHARM CHEM

235. Mass Spectrometry in Life Sci. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

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: Chemistry 260. Lecture 3 hours.

Guy, Siegel
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, Chemistry 260. Lecture 2-3 hours.

Szoka, Guy
Biophysical consideration of membrane structure; passive and active transport mechanisms and implica-

tions for targeted and controlled drug delivery. PHARM CHEM

238. Chemistry and Physics of Polymeric Systems. (2-3) § W. Prerequisite: Pharm Chem 236, Chemistry 260. Lecture 2-3 hours.

Siegel
Chemistry and physics of polymers relevant to the design and function of programmable drug delivery systems. 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 1990-91.

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-B 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) F. Prerequisite: Pharmacology 125 and concurrent enrollment in Pharmaceutical Chemistry 134. Lecture 2 hours.

Burkhalter, Guglielmo
Systematic survey of action and uses of anti-infective and anti-neoplastic drugs. PHARMACOL

136. Pharmacology & Toxicology. (4) W. Prerequisite: Pharmacology 125 and concurrent enrollment in Pharmaceutical Chemistry 136. 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. (1.5 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

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

ing a physical diagnosis and appropriately classifying problems of physical dysfunction as a foundation for clinical problem solving and treatment. PHYS THER

210. Pharmacology & Radiology for PTs. (2) § Sp. Prerequisite: Enrolled in UCSF/SFSU Physical Therapy Program or by consent of program director. Lecture 2 hours.

Byl and Staff

Survey course of pharmacology and radiology of common psychological, social, and neuromusculoskeletal disability. Pharmacological topics include principles, indications, adverse reactions. Radiological topics include principles, indications, advantages and disadvantages of appropriate radiological techniques for assessing skeletal and soft tissue lesions. PHYS THER

218. Principles of Isokinetic Exercise. (3) § W, Sp. Prerequisite: Enrolled in UCSF/SFSU Physical Therapy Program and permission of instructor. Lecture 2 hours. Lab 3 hours.

Sadowsky

Principles of isokinetic exercise applied to the identification, assessment, and significance of normal and abnormal muscle performance. Patient preparation, exercise and testing protocols, test result interpretation, and equipment maintenance will be emphasized. Variable lecture/laboratory ratio. PHYS THER

220. Current Topics (1) § Su, F, W, Sp. Prerequisite: Enrolled in UCSF/SFSU Physical Therapy Program. Seminar 2 hours.

Staff

Students, staff, or guest lecturers present selected topics, reflecting developing directions in physical therapy (e.g., pain control, rehabilitation engineering, mobilization, neuroplasticity, premature high-risk infants, TMJ problems, craniocervical therapy). May be repeated for credit when topics vary. PHYS THER

250. Research Seminar in Physical Therapy. (1-8) § F Prerequisite: Completion of PT research seminars through PT 253. Enrolled in UCSF/SFSU Physical Therapy Program or by consent of program director.

Byl

Problem solving, designs, methodologies, data analysis procedures for specific topics in basic and clinical physical therapy research. Implementation of one facet of an ongoing project, under guidance of the investigator. PHYS THER

252. Research Seminar: Critique of Physical Therapy Literature. (1) § F Prerequisite: Completion of a course in statistics and enrolled in Graduate Program in Physical Therapy. Open only to students enrolled in the Curriculum, or by consent of program director. Seminar 3 hours.

Byl

The first seminar of a research series focusing on problems of research in physical therapy, practical statistics, writing abstracts and critiques of research, literature review, including submission of a literature

review on the student's proposed research topic. PHYS THER

253. Research Seminar: Proposal Writing. (1) § F Prerequisite: grade B or better in PT 252. Open only to students enrolled in the Curriculum or by consent of program director. Seminar 3 hours.

Byl

Converting the research question to a research hypothesis, and proposal writing including preparation of a proposal for a research project. PHYS THER

254. Research Seminar: Data Analysis. (1) § Sp. Prerequisite: Completion of PT research seminars 730, 252 and 253. Enrolled in UCSF/SFSU Physical Therapy Program or by consent of program director. Seminar 1 hour.

Byl

This is the last seminar in the research series, and includes data analysis, data interpretation, problem solving, manuscript preparation, and presentation of results to class and other professionals. PHYS THER

300. Practicum in Teaching. (1-4) § F, W, Sp, SS3. Prerequisite: Enrolled in Graduate Program in Physical Therapy and satisfactory completion of PT 200. Consent of instructor.

Staff

Training in teaching in a course offered by the Graduate Program in Physical Therapy 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. PHYS THER

410. Clinical Clerkship. (0) § W. Prerequisite: Completion of academic coursework with overall B average. Open only to students enrolled in the Curriculum, or by consent of program director. Clinic 1 day/week.

S. Richards

Students observe and assist the physical therapy clinician in the provision of assessment, evaluation, and physical therapy treatment services in one practice setting, one day a week for 11 weeks. PHYS THER

411. Clinical Clerkship. (0) § Sp. Prerequisite: Enrolled in Graduate Program in Physical Therapy and satisfactory completion of academic coursework with overall B average to enter the clinical clerkships. Open only to students enrolled in the Curriculum, or by consent of program director. Clinic 1 day/week.

S. Richards

Students develop their physical therapy assessment skills and integrate their didactic information with patient treatment by working closely with a clinical preceptor in the clinical setting to evaluate patients under supervision and directly observe staff provide physical therapy treatment. PHYS THER

412. Clinical Clerkship. (0) § Su. Prerequisite: PT 410 and PT 411. Open only to students enrolled in the Curriculum, or by consent of program director. 40 hours/week, 5 days/week for 6 weeks.

S. Richards

Students provide assessment, evaluation, and physical therapy treatment under the direct supervision of a physical therapist. Students must demonstrate satisfactory completion of this clerkship before progressing to the next clerkship. PHYS THER

413. Clinical Clerkship. (0) § Su. Prerequisite: PT 412. Open only to students enrolled in the Curriculum, or by consent of program director. 40 hours/week, 5 days/week for 6 weeks.

S. Richards

Students provide patient care under supervision in a clinical facility affiliated with UCSF. Students must satisfactorily complete this clerkship prior to taking PT 414. PHYS THER

414. Clinical Clerkship. (0) § SS3, F, W, Sp. Prerequisite: PT 410, PT 411. Open only to students enrolled in the Curriculum. Forty hours/week for 6-12 weeks.

S. Richards

Students provide patient care under the guidance and supervision of a clinical preceptor in a clinical facility affiliated with UCSF. The student is expected to progress to increased independence of physical therapy practice. PHYS THER

415. Clinical Clerkship. (0) § SS3. Prerequisite: Enrolled in UCSF/SFSU Physical Therapy Program and satisfactory completion of PT 412 and 413.

Radtka

Students provide physical therapy patient care for 40 hours/week for 11 weeks under the guidance and supervision of a clinical preceptor in one or two clinical facilities that differ from the type of setting in PT 412 and 413. PHYS THER

418. Advanced Clinical Clerkship. (0) § Su, F, W, Sp. Prerequisite: Enrolled in UCSF/SFSU Physical Therapy Program.

S. Richards

This advanced clinical clerkship is specifically arranged to enable the student to develop advanced clinical skills under the supervision of a clinical preceptor in one clinical setting. Setting and emphasis will vary. PHYS THER

Physiology

100. Organ System Physiology. (6) § W. Prerequisite: Anatomy 100 and Interdepartmental Studies 100 and concurrent enrollment in Biochemistry 100; or by consent of instructor. Lecture 4 hours. Lab 4 hours. Conference 2 hours.

Wright

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 exercises, demonstrations, and clinical illustrations. PHYSIOLOGY

101. Endocrinology & Gastroenterology. (5) § Sp. Prerequisite: Anatomy 100A-B, Biochemistry

100, Physiology 100, Interdepartmental Studies 100, or consent of instructor. Lecture 1 hour. Conference 4 hours.

Lingappa

Within the framework of endocrine and gastrointestinal physiology, the course will strive to teach the information necessary to achieve an understanding of key physiologic principles. PHYSIOLOGY

110. Integrative & Nutritive Systems. (6) § Sp. Prerequisite: College-level biology, physics, and chemistry, or consent of instructor. Lecture 4 hours. Lab 1 hour. Conference 1 hour.

A. Miller

To provide understanding of the mechanisms and processes in various organ systems. Provide necessary background for learning about human disease and its treatment. Enhance understanding of the function of organs and cells. Provide knowledge for realization that oral functions and disease involve exactly the same processes as other human functions and disease. Help prepare skills necessary to understand and evaluate clinical literature. PHYSIOLOGY

120. Mammalian Physiology. (2.5) § 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. Conference 0.5 hour.

Reid and Staff

Study of the integrative systems of the mammalian organism, particularly the gastrointestinal and endocrine systems. PHYSIOLOGY

120.01. Mammalian Physiology. (2.5) 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 by consent of instructor. Lecture 2 hours. Conference 1 hour.

Ganong

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 by 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

- 451. Psychiatric Grand Rounds.** (1.5) F,W,Sp. Lecture 1.5 hours.
Freimer
Members of the Department of Psychiatry and distinguished guests make clinically centered presentations reflecting diverse areas of the field. PSYCHIATRY
- 458. Research on Mental Processes.** (1.5) 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 1.5 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.** (1.5) F,W, Sp. Prerequisite: Resident in Department of Psychiatry or consent of instructor. Seminar 1.5 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
- 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
- 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.** (1.5) Su, F,W, Sp. Prerequisite: Consent of instructor. Lab 4.5 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
- 481. Child Care Observation.** (1) Su. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor. Field work 1.5 hours.
Reece
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.
Siegel, Lieberman
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
- 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.
Rubenstein 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.
Hanson
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.** (1.5) F,W, Sp. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor for others. Seminar 1.5 hours.
Gelber
Participation with senior staff member to discuss ongoing dynamics of psychotherapeutic work with adolescents. PSYCHIATRY
- 488. Child Psychiatry Clinical Conf.** (1.5) F,W, Sp. Prerequisite: Required for first- and second-year child psychiatry fellows, or consent of instructor for others. Conference 1.5 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.
Hanson, Simpson
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.** (0.5) Su. 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.** (1.5) Su. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1.5 hours.
Shatkin
Discussion of goals, attitudes, and skills required in child psychiatry consultation/liaison work. PSYCHIATRY
- 493. Pediatric Consultation Seminar.** (1.5) F. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1.5 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.** (1.5) F,W, Sp. Prerequisite: Required for second-year child psy-

- chiatry fellows, or consent of instructor for others. Seminar 1.5 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.
O'Byrne
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.** (0.75) Su. 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
- 180.05. Stress among Hlth Professionals.** (2) § F. 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
- 180.08. Brain-Behavior Research Methods.** (3) § W. Prerequisite: Survey of physiological psychology, or equivalent. Requires prior consent of instructor. Lecture 2 hours. Seminar 1 hour.
Galin 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

Laboratory instruction on preparation for and construction of maxillary posterior fixed partial denture and a provisional bridge; preparing anterior teeth for partial crowns; casting metal copings for porcelain bonding; applying porcelain to metal copings. RESTOR DENT

125.10B. Removable Partial Denture Prosthodontics Lab. (2) W. Prerequisite: RD 121A, 125.10A. Concurrent enrollment in RD 121B required. Lab 6 hours.

Dellings
Laboratory course introduces second-year dental students to the clinical rationale and laboratory procedures of removable partial denture prosthodontics and prepares the student for the clinical practice of this phase of dentistry. RESTOR DENT

125.10C. Removable Prosthodontics Lab, Complete Dentures. (2) Sp. Prerequisite: RD 121B, 125.10B. Concurrent enrollment in RD 121C required. Lab 6 hours.

Traweek
Continuation of introductory laboratory instruction on the fabrication and repair of complete dentures. RESTOR DENT

126.01. Introduction to Endodontics. (2) F. Lecture 1 hour. Lab 3 hours.

Goodis
Introductory lectures and laboratory in endodontics. Lectures discuss nonsurgical endodontics and the rationale of endodontic treatment. Laboratory introduces students to the armamentarium and clinical techniques of nonsurgical endodontics. RESTOR DENT

126.02. Introduction to Endodontics. (2) W. Lecture 1 hour. Lab 3 hours.

Braly, Goodis
Lectures discuss selection of appropriate treatment for the build-up of missing tooth structures in vital and pulpless teeth, identification and removal of caries from infected teeth, and selection of appropriate bases, liners, and interim restorations. Laboratory provides experience with the armamentarium and clinical techniques. RESTOR DENT

127. Esthetic Dentistry. (2) Sp. Lecture 1 hour. Lab 3 hours.

Braly
Lectures describe esthetic alternatives in dentistry including indications and contraindications for various materials and procedures. The course emphasizes porcelain veneers and conservative posterior restorations. Laboratory instruction demonstrates how to prepare teeth for esthetic restorations and familiarizes students with various materials and clinical techniques. RESTOR DENT

130.01. Clinical Procedures in General Restor Dent. (1) SS1, SS2. Prerequisite: RD 120C, 121C, 123, and 126C. Lecture 1 hour.

Pelzner
Lecture taken concurrently with RD 139 intended to supplement the beginning clinician's knowledge of

materials, techniques, and management of the situations most frequently encountered early in the student's clinical experience. RESTOR DENT

130.02. Clin Procedures in General Restor Dent. (1) F. Prerequisite: RD 130.01, 130.02. Lecture 1 hour.

J. White
Course is designed to provide clinically relevant material in conjunction with clinical practice. Major topics include the biological and mechanical basis of operative dentistry, preparation design, clinical considerations in using composite resin, recurrent caries and bonding to tooth structure, and clinical considerations in using dental amalgam. RESTOR DENT

130.03. Clin Procedures in General Restor Dent. (1) W. Prerequisite: RD 130.02. Lecture 1 hour.

Eakle
Lecture series covering the basic procedures and materials used for single-tooth restorations using direct filling gold and cast gold. RESTOR DENT

130.04. Clin Procedures in General Restor Dent. (1) Sp. Lecture 1 hour. Prerequisite: RD 130.03.

Lacy
Survey of new dental materials and clinical techniques in esthetic restorative dentistry, i.e. esthetic posterior restorations, anterior veneers, bonded bridges, and intraoral porcelain repair. Discussion includes advantages, disadvantages, indications, and contraindications of treatment options presented. RESTOR DENT

131. Biomaterials Science. (1) F. Prerequisite: RD 130.01. Lecture 1 hour.

Lacy
Lectures will emphasize clinical application and behavior of dental materials presented in first and second years. Students are expected to develop a working knowledge of specific products by name, type, and application. RESTOR DENT

131.01 Clin Procedures in Removable Prosthodontics. (1) SS1, SS2. Prerequisite: RD 121C and 125.10C. Lecture 1 hour.

Finzen
Course begins exposure to the clinical procedures of complete denture diagnosis, treatment planning, and fabrication. It draws background information from concepts presented in the second year preclinical courses, but the emphasis is on the clinical management of edentulous patients. RESTOR DENT

131.02. Clin Procedures in Removable Prosthodontics. (1) F. Prerequisite: RD 131.01. Lecture 1 hour.

Finzen
Course continues topics pertinent to complete denture fabrication that were started in RD 131.01. It also begins exposure to the clinical procedures for the diagnosis, treatment planning, and design of removable partial dentures. RESTOR DENT

131.03. Clin Procedures in Removable Prosthodontics. (1) W. Prerequisite: RD 131.02. Lecture 1 hour.

Yonemura
Course describes the clinical procedures involved in removable partial denture fabrication. It reviews and reinforces design concepts previously given during the second and third years. RESTOR DENT

131.04. Clin Procedures in Removable Prosthodontics. (1) Sp. Prerequisite: RD 131.03. Lecture 1 hour.

Curtis
Course presents various topics in the field of prosthodontics. Areas pertinent to removable partial dentures are covered along with the subjects of dental implants, maxillofacial, and geriatric prosthodontics. RESTOR DENT

132.01. Endodontics: Theory. (1) F. Prerequisite: RD 130.01. Lecture 1 hour.

Goodis
Course is designed to teach the third-year dental student proper diagnostic procedures for non-surgical endodontic cases and to instruct in proper methods of emergency treatment. Course includes pulpal and periapical pathological entities, and correlates those entities with diagnostic methods. RESTOR DENT

132.02. Endodontics: Theory. (1) Sp. Prerequisite: RD 132.01. Lecture 1 hour.

Goodis
Course is designed to expose third-year dental students to adjunctive endodontic procedures necessary to supplement their knowledge of endodontic procedures. RESTOR DENT

133.01. Clin Procedures in Fixed Prosthodontics. (1) F. Prerequisite: RD 130.01, 131.01. Lecture 1 hour.

Tueller
Lecture series designed to assist the student in the clinical management of patients undergoing fixed partial denture construction. The lectures will amplify, extend, and update the theoretical and laboratory experience and provide clinical relevance to the material covered in the previous two years. RESTOR DENT

133.02. Clin Procedures in Fixed Prosthodontics. (1) W. Prerequisite: RD 133.01. Lecture 1 hour.

Tueller
Lecture series designed to assist the student in the clinical management of patients undergoing fixed prosthodontic treatment. Topics will include technical and biologic considerations for completing the clinical and laboratory steps of shade selection, impressions, fabricating provisional restorations, and cast articulation. RESTOR DENT

133.03. Clin Procedures in Fixed Prosthodontics. (1) Sp. Prerequisite: RD 133.02. Lecture 1 hour.

Tueller
Continuation of lecture series to assist the student in the clinical management of newer and more complex

fixed prosthodontic techniques. The traditional will be compared to the contemporary and the rationale for specific treatments in specific situations will be discussed. RESTOR DENT

137. Clinical Endodontics. (0-0.5) Su, F, W, Sp. Prerequisite: RD 120C, 125C, 126C. Concurrent enrollment in RD 130 lecture series required. Clinic variable.

Goodis
Clinical instruction and practice in the discipline of endodontics. Students are expected to pass a qualifying clinical examination by the end of spring quarter of the third year. RESTOR DENT

138. Prosthodontics Clinic. (0-1) Su, F, W, Sp. Prerequisite: RD 120C, 125C, 126C. Concurrent enrollment in RD 130 lecture series required. Clinic variable.

Finzen
Clinical instruction and practice in the discipline of prosthodontics. Students are expected to pass a clinical qualifying examination by the end of spring quarter of the third year. RESTOR DENT

139. Clinical Restorative Dentistry. (0-18) Su, F, W, Sp. Prerequisite: RD 120C, 125C, 126C. Concurrent enrollment in RD 130 lecture series. Clinic variable.

Eakle
Clinical instruction and practice in oral diagnosis and treatment planning, and restorative dentistry. Students are required to pass a series of qualifying examinations by the end of spring quarter of the third year. RESTOR DENT

147. Clinical Endodontics. (0-2) Su, F, W, Sp. Prerequisite: Completion of RD 130.04, 137, 138, 139. Must be taken concurrently with RD 149. Clinic variable.

Goodis
Continuation of clinical instruction and practice in the discipline of endodontics. Students are expected to pass a clinical qualifying examination by the end of spring quarter of the fourth year. RESTOR DENT

148. Clinical Prosthodontics. (0-5) Su, F, W, Sp. Prerequisite: Concurrent enrollment in RD 149. Clinic 9 hours.

Finzen
Continuation of clinical instruction and practice in the discipline of prosthodontics. Students are expected to pass a clinical qualifying examination by the end of spring quarter of the fourth year. RESTOR DENT

149. Clinical Restorative Dentistry. (0-12) Su, F, W, Sp. Prerequisite: RD 137, 138, 139. Concurrent enrollment in RD 147, 148. Clinic 9 hours.

Pelzner
Continuing clinical instruction and practice in oral diagnosis, treatment planning, and restorative dentistry. Students are expected to pass a series of qualifying examinations (clinical) before the end of spring quarter. 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.

Finzen

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.

Finzen

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.

Finzen

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 post-doctoral 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. (0-8) Su, F, W, Sp. Prerequisite: Enrolled postdoctoral specialty students. Fourth-year dental students may take this course as an elective with permission of the instructor. Seminar 2 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 envi-

ronment. The treatment team will include medical and dental specialties. RESTOR DENT

179.03. Temporomandibular Joint Clinic. (0-4) Su, F, W, Sp. Prerequisite: D.D.S. degree. With consent of instructor, fourth-year students may take this course as an elective. Clinic 3 hours per week.

McNeill

Participation in the Temporomandibular Joint Clinic applying knowledge of history-taking and differential diagnosis and utilizing such diagnostic techniques. RESTOR DENT

180. New Applic in Restor Dent: Materials & Techniques. (1) F, W, Sp. Prerequisite: Fourth-year standing. Lecture 1 hour.

Lacy

Survey of new materials and clinical techniques used in contemporary dental practice with particular emphasis on cosmetic dentistry. Topics may include, but are not limited to, dentin-bonding systems, etched porcelain restorations, methods of intraoral repair of fixed restorations, esthetic posterior restorations, alternative designs for fixed bridgework, and newly introduced products. 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. Scientific Writing in Dentistry. (2) W. Prerequisite: Registered dental student in good standing. Limited to 20 students. Conference 2 hours.

White

Students will produce student research journal containing literature reviews and overviews of research done by dental and dental hygiene students. Topics include writing review articles, word processing techniques, communication skills, and the steps involved in the production of a journal. RESTOR DENT

181.02. Advanced Endodontics Concepts. (1) W. Lecture 1 hour.

Barkhordar

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

182. Implant Prosthodontics. (1) F, W, Sp. Prerequisite: Third- or fourth-year standing. Lecture 1 hour.

Finzen, Smith

An elective lecture course on the restorative aspects of dental implantology. Topics include the types of dental implants, diagnostic evaluation, placement techniques, and the treatments applicable to the various types of dental implants. RESTOR DENT

182.03. Senior Restorative Elective. (1) F Prerequisite: Fourth-year standing. Lecture 1 hour.

Meli

Advanced clinical restorative elective. Lectures describe the restorative general practice. Topics include office layout, laboratory relations, treatment limitations, financial arrangements, scheduling, and treatment failures. RESTOR DENT

182.05. Advanced Partial Denture Design. (1)

Sp. Prerequisite: Completion of three removable partial dentures. Consent of instructor. Enrollment limited to 5 students. Seminar 1 hour.

Finzen and Staff

Seminar to discuss current concepts of removable partial denture design. The emphasis will be on designing RPDs for routine situations, but more complex designs will also be presented. Students will be assigned casts to design and articles to review. RESTOR DENT

183. Lasers in Dentistry. (1) SS1, SS2. Prerequisite: Third- or fourth-year standing and satisfactory progress in all required Restorative Dentistry courses. Lecture 1 hour or lab 3 hours.

J. White, Goodis

Course will provide an understanding of laser physics, tissue interaction, safety considerations, clinical research methodology, and applications of the Nd:YAG laser for intraoral hard and soft tissue. Laboratory exercises provide hands-on experience. 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. CAD/CAM: Application to Dentistry. (1) Sp. Prerequisite: Second-, third-, or fourth-year dental student. Limit 20 students. Lecture 2 hours for 4 weeks, Lab 1 hour for 3 weeks.

Fett, Setcos

Course will concentrate on adhesive bonded ceramic inlays in posterior teeth. Topics include indications for bonded restorations, tooth preparation, operation of a CAD/CAM system, bonding procedures, finishing and polishing techniques. A literature review will give the students a perspective of the indications of computer-aided dentistry to date. 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 II, III, and V gold foil restorations using 24-karat direct filling gold. Students learn to use various direct filling gold materials such as fibrous gold foil, goldent, and electroloy. RESTOR DENT

187. Implant Prosthodontics Clinic. (0.5-3) Su, F, W, Sp. Prerequisite: Fourth-year standing. Must be taken concurrently with RD 182 and the Oral &

Maxillofacial Surgery Clerkship (O&MS 189.04). Lab 1-3 hours, Clinic 1-6 hours.

Finzen, R. Smith

An elective course that provides clinical and laboratory experience in the restorative aspects of dental implantology. RESTOR DENT

187.04. Adv Clinical Operative Dentistry. (0-4)

Su, F, W, Sp. Prerequisite: Fourth-year standing and permission of instructor. Clinic 3-12 hours.

Birtcil

Advanced instruction in clinical operative dentistry with emphasis on quadrant dentistry and complex restorative procedures. 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

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.

G.W. Marshall, S. Marshall, 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) F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Goodis, Barkhordar, Srinivasan

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, Davis

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.

White, Lacy

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

199.05. 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.

Finzen, Hutton

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

210. Advanced Concepts in Biomaterials. (1) § Sp. Prerequisite: DDS, DMD, or equivalent degree. Must be enrolled in a postdoctoral specialty program. Lecture 1 hour.

Marshall

This graduate core course in biomaterials science introduces the student to the broad scope of the biomaterials field. A basic knowledge of dental materials is assumed and biomaterials principles are emphasized during discussion of current methods and problems in the field as related to dentistry. RESTOR DENT

401. Concepts of Occlusion. (2.5) Su. Must be enrolled in postdoctoral prosthodontics program. Lecture 2 hours. Clinic 2 hours.

Hong

A review of various concepts of occlusion. Clinical diagnostic procedures and treatment modalities will be reviewed and demonstrated. RESTOR DENT

410. Advanced Fixed Prosthodontics. (1) F. Lecture 1 hour.

Kinsel

The lectures will present the rationale and methodology in the use of fixed appliances to restore the dentition of patients with missing teeth or malocclusion. RESTOR DENT

411. Advanced Endodontics Seminar. (1) F. Lecture 1 hour.

Barkhordar, Casanova

The lecture series will focus on the diagnosis and management of complex endodontic problems. RESTOR DENT

412. Advanced Removable Prosthodontics. (0-2) Su, F, W, Sp.

Green

The series will cover the rationale and methodology in using removable prosthetics in the care of patients with complex oral problems. RESTOR DENT

416. Emergency Dental Care. (0-2) Su, F, W, Sp. Must be first-year student in the AEGD program.

Nakahara, Kirkland

A seminar series will provide information on the diagnosis and management of dental and medical emergencies. The trainee will provide consultations and care for patients presenting at the Emergency Room in the Dental Clinics Building. RESTOR DENT

418. Prosthodontics Clinic. (0-40) Su, F, W, Sp. Must be student in the AEGD program. Clinic rotation 300-1200 hours.

Finzen

Advanced prosthodontic clinical treatment utilizing a variety of treatment philosophies, articulating instruments, and techniques. RESTOR DENT

419. Advanced Comprehensive Dental Care. (0-41) Su, F, W, Sp. Must be enrolled in the AEGD program. Clinic 24 hours/week for 50 weeks.

Kirkland, Nakahara, Chin

Residents will provide advanced comprehensive dental care. RESTOR DENT

426. Advanced Endodontics for the Generalist. (2.5) Su, F. Must be second-year student in the AEGD program. Seminar 1.5 hours. Clinic 4 hours.

Casanova

This seminar and clinical course will focus on the diagnosis and management of advanced endodontic problems. RESTOR DENT

427. Advanced Restorative Dentistry for the Generalist. (0-5) F, W, Sp. Must be second-year student in the AEGD program. Seminar 1 hour. Clinic 2 hours.

Lacy

This seminar and clinical demonstration course will provide instruction and supervision in the most recent advances in the management of restorative dental problems. RESTOR DENT

428. Prosthodontics Clinic. (0-40) Su, F, W, Sp. Clinic 300-1200 hours.

Finzen

Advanced prosthodontic clinical treatment utilizing a variety of treatment philosophies, articulating instruments, and techniques. RESTOR DENT

429. Complex Comprehensive Dental Care. (0-16.5) Su, F, W, Sp. Must be second-year student in the AEGD program. Clinic 10 hours.

Nakahara, Kirkland

Provision of comprehensive dental care for patients with complex medical and dental needs. RESTOR DENT

438. Prosthodontics Clinic. (0-40) Su, F, W, Sp. Clinic 300-1200 hours.

Finzen

Advanced prosthodontic clinical treatment utilizing a variety of treatment philosophies, articulating instruments, and techniques. RESTOR DENT

486. TMD & Facial Pain. (0-11.5) Su, F, W, Sp. Must be first-year student in the AEGD program or by permission of instructor.

McNeill, Becker

The seminar will focus on the rationale and techniques used in the diagnosis and treatment of patients with TMD or facial pain. This will include history-taking, imaging techniques, and behavioral modification. RESTOR DENT

489. Advanced TMD for the Generalist. (0-12) Su, F, W, Sp. Must be second-year student in the AEGD program.

McNeill

This experience will allow the second-year AEGD trainee to provide direct services to patients with temporomandibular dysfunction (TMD). RESTOR DENT

Sociology

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 Psychology of Chronic Illness. (2-3) § Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Field work 0-3 hours.

G. Becker

Course provides discussion of problems faced by chronically ill persons and their families including crisis management, handling symptoms, managing regimens, social isolation, phases of disease, temporal difficulties, normalization, dying, as well as policy issues confronting health care personnel and the general public. SOC BEH SC

205. Health Professions, Occupations, and Work. (3) § W. Lecture 2 hours. Lab 3 hours.

C. Harrington

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 doctoral students in sociology. Restriction: Doctoral-level students in nursing or sociology. Lecture 2 hours. Lab 3 hours.

Staff

Course examines the relationship of social class, ethnic identification, group membership, family structure, occupation, and life style to health and illness, and therapeutic interaction of lay persons and health professionals. SOC BEH SC

209. Sociology of Power. (2-4) § F, W, Sp. Prerequisite: A graduate-level sociological theory course. Restrictions: Doctoral students only. Lecture 2-4 hours.

C. Estes

Course surveys the classical and contemporary sociological issues in theoretical and empirical work on power; explores underlying assumptions and paradigms emerging and reflecting a sociopolitical milieu. The student will analyze literature and debates on power structure research and theory. SOC BEH SC

212A. Sociological Theory. (3) § F. Lecture 2 hours. Field work 3 hours.

A. Szasz

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: Contemporary. (3) § W. Prerequisites: S212A and must be a doctoral student. Lecture 2 hours. Lab 3 hours.

C. Estes

Course examines and evaluates contemporary 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

212C. Sociological Theory. (3) § Sp. Prerequisites: S212A and must be a doctoral student. Lecture 2 hours. Lab 3 hours.

A. Clarke

Course consists of readings and discussions on interactionist theory in sociology, with emphasis on the origins and development of the Chicago School of Sociology, as well as an examination of the link between philosophy of pragmatism and interactionism. SOC BEH SC

214A. Field Research. (5) § F, Sp. Prerequisite: Doctoral level. Lecture 2 hours. Field work 9 hours.

A. Clarke, V. Olesen,

Course offers sociological perspectives on the dimensions and properties of research in natural, social settings. Focus is upon developing skills in negotiating entree, watching, listening, and recording of data. Emphasis is upon developing conceptual schemata in preparation for analysis. SOC BEH SC

214B. Qualitative Analysis. (5) § W. Prerequisite: Doctoral level; Sociology 214A. Lecture 2 hours. Field work 9 hours.

A. Clarke, V. Olesen

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.

A. Strauss

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

Course is designed for doctoral students investigating advanced research issues preparatory to qualifying examinations. Topics to be analyzed will vary each year, but will be focused upon a specific area. Laboratory assignments are for research activities on special topics in the area of aging. 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.

R. Newcomer

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: N287A 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.

C. Harrington

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) § F,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

233. Sociology of Aging. (3) § W, Sp. Lecture 2 hours. Lab 3 hours.

P. Fox, S. Kaufman

Course reviews theories of aging including a review of theories of aging, current and historical trends in aging, factors related to aging, effects of aging on individuals and families, and formal and informal service systems for an aging population. SOC BEH SC

234. Health & Aging. (2-3) § F,W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 0-3 hours.

G. Becker, S. Kaufman

Course examines the health status of the aged in the United States related to biological, behavioral, socio-cultural, and environmental factors. Social, cultural, and 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,W. Restriction: Doctoral-level students. Lecture 2 hours. Field work 3 hours.

Staff

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. Advanced Studies in Women's Health. (2-4) § F,W, Sp. Seminar 2 hours. Lab 0-6 hours.

Staff

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. Evaluation Research Methods. (3) § F,W, Sp. Prerequisite: Sociology 214A and 214B. Non-doctoral students may enroll upon approval of instructor. Lecture 2 hours. Lab 3 hours.

R. Newcomer

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 policymakers, analyzed. SOC BEH SC

240. Older Women and Their Health. (2-4) § F. Seminar 2 hours. Optional project for additional units.

C. Estes

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.

Staff

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 morbidity-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.

Staff

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.

Staff

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) § Sp. Prerequisite: S219, or S260, or equivalent and/or consent of instructor. Lecture 2 hours. Field work 3 hours.

C. Harrington, C. Estes

Course analyzes issues and trends in legislation and politics of health and examines health professionals' roles in developing strategies to influence legislative and political processes that affect planning and delivery of care. SOC BEH SC

248. Group Independent Study. (1-4) § F,W, Sp. Prerequisite: Consent of instructor. Seminar 1-4 hours.

Staff

Groups of two or more students select special problems to investigate on a 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

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.

Staff

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.

A. Clarke

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. Sociology of Reproduction. (2-4) § Sp. Lab 0-6 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

A. Clarke

Course focuses on recent theoretical and substantive developments concerning female sexuality, birth control, population control, abortion, reproductive technologies, and pregnancy/childbirth. Examines race and class relations and concerns of the state, science, and medicine. SOC BEH SC

254. Women's Health: Policy Issues. (2-4) § W. Prerequisite: Consent of instructor. Lab 0-6 hours. Seminar 2 hours.

Staff

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. Environment and Health. (2-3) § F, Lab 0-3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

Staff

Course analyzes social, psychological, and biological perspectives about environmental influences on health. Reviews institutionalization, housing, and potential sources of environmental stress and their effects on adaptation across the life cycle. SOC BEH SC

256. Introduction to Survey Research. (3) § Sp. Prerequisite: Biostatistics 183 and 185AB or equivalent. Restriction: Doctoral level; non-doctoral stu-

dents 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 provides rudimentary skills for those conducting their own research and large field surveys. SOC BEH SC

257. Minority Health and Aging. (2-3) § F, Sp. (offered once yearly). Lecture 2 hours. Field work 0-3 hours.

V. Jones

Course explores the diversity of racial and ethnic variation and examines the health and aging experience of minority elderly within the context of families, communities, and the nation. SOC BEH SC

260. Policy and Politics of Health. (3) § Sp. Lecture 2 hours. Field work 3 hours.

C. Harrington

Course examines health care policy and politics in terms of historical and contemporary issues related to access, quality, and cost. Organizational, financing, and labor market issues are included, along with strategies for social change. 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

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: S270A (Quantitative Methods I). Restriction: Doctoral students in Sociology or consent of instructor. Lecture 2 hours. Lab 3 hours.

R. Newcomer

Course examines quantitative research methods including issues of sampling, reliability and validity, data collection, analysis, and inference. The course exam-

ines 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: S270A and S270B (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 or consent of instructor. Seminar 2 hours. Lab 3 hours.

Staff

Course addresses 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.

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

276. Multidisciplinary Geriatric Assessment. (1-3) § F,W, Sp. Lab 3-9 hours.

G. Becker, S. Kaufman

Course provides clinical experience in multidisciplinary assessment for sociologists, nurses, physicians, and other clinicians. Course involves application of social, psychological, economic, and other factors in assessment. SOC BEH SC

277. Sociology of Disability. (3) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

M. LaPlante

Course covers sociological models and theories of disability and handicap. Areas to be covered include definitions, utility of role theory, models of identification and causation, and sociological perspectives on disability policy. SOC BEH SC

278. Sociology of Alcohol and Drugs. (2-3) § F. Lab 0-3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

K. Fillmore

Course examines alcohol and drug use from multiple theoretical perspectives in various historical and cultural contexts. Examines the distribution of alcohol and drug use across and within societies and various policies and their consequences for the control and management. SOC BEH SC

279. Nutrition and Chronic Illness. (2-3) § F, Lab 0-3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

B. Johnstone

Course introduces social and biological perspectives on nutrition and chronic illness. Examines interactions between nutritional factors, chronic illness, the aging process, alcohol and substance abuse, and other such factors. Emphasizes a critique of empirical research in the area. SOC BEH SC

280. Meta-Analysis in Health Research. (3) § F. Prerequisite: Basic research statistics and Research Methods (S270AB or N295). Lab 3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

K. Fillmore

Course introduces meta-analysis techniques and applications in health research, including research design, sampling and data collection, and analytical techniques and software. Uses examples from drug and alcohol studies, and other health care evaluation studies. SOC BEH SC

281. Justice, Equity, and Health Care. (2-3) § F. Lab 0-3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

Staff

Course examines how health care, a scarce resource, is divided among members of society, including theories from philosophy, medical ethics, economics, political science, sociology, and psychology. Examines justice and equity issues for different groups and among different health policies. SOC BEH SC

282. Sociology of Science/Technology. (2-4) § W. Lab 0-6 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

A. Clarke

Course examines early functionalist and Marxist theories, Kuhn's work, social constructionist, ethnomethodological, interactionist, neo-functionalism, critical, and neo-Marxist perspectives. Focuses on laboratory, controversy, technological, and representational studies and organization and funding. Links history and philosophy. SOC BEH SC

283. Selected Topics/Health Economics. (2-3) § W. Prerequisite: S262 (Health Care Economics). Lab 0-3 hours. Seminar 2 hours.

R. Miller

Course examines selected topics in health care economics, with attention to basic economic theory of supply and demand for health care services and health insurance. Includes national health insurance proposals and the Canadian health care system. SOC BEH SC

284. Research on AIDS/HIV Illnesses. (3) § Sp. Prerequisite: S230 (Socio-cultural Issues in AIDS). Lab 3 hours. Seminar 2 hours. Offered in alternate years. Not offered 1993-94.

C. Harrington, W. Holzemer

Course examines research in social and behavioral aspects of AIDS/HIV related illnesses and critiques methods, data collection, and analyses aspects of the research as well as the theoretical bases for the work. SOC BEH SC

285. Sociocultural Variations in Health. (3) § F. Lecture 2 hours. Field work 3 hours.

R. Staples

Course addresses variations in health attitudes and practices among diverse groups in the United States, with implications for nursing practice. SOC BEH SC

286. Women, Health, and Healing. (2-4) § F. Lecture 2 hours. Field work 0-6 hours.

A. Clarke

Course examines women's participation in formal and informal health and healing systems, with emphasis on health problems, recruitment to health professions, images of women in health and illness, and women as providers. Issues for minority women of color are highlighted. SOC BEH SC

287. Black Families in America. (2-3) § W, Sp. Lecture 2 hours. Lab 0-3 hours.

R. Staples

Course provides a sociological interpretation of the black family institution in the United States of America. It examines black family culture, values, roles, socialization processes and class and gender variations. Emphasis is on changes in the last thirty years. 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. Offered 1993-94.

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. Offered 1993-94.

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 brainstem function in animals and man. OTOLARYN

203. Forebrain Mechanisms. (4) § Sp. Prerequisite: Consent of instructor. Lecture 3 hours. Lab 1 hour. Offered in alternate years. Offered 1993-94.

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

204. Speech Production and Perception. (4) § F. Lab 2 hours. Seminar 3 hours.

Turner

This course is part of a two-year core curriculum covering the communicative neurosciences. It is the first course in the sequence which considers speech and language. It will cover basic acoustics, acoustic phonetics, the anatomy and physiology of speech production, and theories of speech perception. OTOLARYN

205. Language Science. (3) § Sp. Lecture 2.5 hours. Lab 2 hours. Offered in alternate years. Not offered 1993-94.

Turner

This is the final course in a 2-year sequence (201, 202, 203, 205). The objective of the core curriculum is to provide students with a fundamental knowledge of the speech and hearing sciences. This course covers

basic language science with emphasis on the cortical processing of language. OTOLARYN

210. Fundmntl of Auditory Neurobiol. (1) § F,W, Sp. Prerequisite: Consent of instructor. Lecture 1-3 hours.

Schreiner

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. Offered 1993-94.

Staff

Review of the physics of sound as it applies to the 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

215. Laboratory Rotation. (1-4) § F,W, Sp. Prerequisite: Consent of instructor. Lab 3-12 hours.

Staff

For students who arrange a rotation in the research laboratory of a faculty member. Students will participate in an ongoing research project and review relevant literature. OTOLARYN

220. Speech and Hearing Science. (1) § F,W, Sp. Seminar 1 hour.

Staff

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

Staff

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.

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

Stomatology

100. HIV/AIDS: A Current Review. (2) W. Prerequisite: Dental I, Dental Hygiene I. Lecture 2 hours.

Bartnof, D. Greenspan, Levy

An overview of the HIV/AIDS pandemic, with a selected focus on basic and clinical sciences, and social/psychosocial aspects. Sixteen hours are presented in lecture format, two hours as panel presentations, and two hours as emphasized review sessions. STOMATOL

Surgery

110. Clinical Clerkship in General Surgery. (1.5 per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences; third-year standing.

Macho

A basic course in surgery designed to cover those aspects of surgery which should be familiar to all practitioners. Students are assigned to work with ward teams and also to participate in teaching seminars. SURGERY

111. Advanced Surgery Core Clerkship. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 110.

Reilly

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

140.01A. Advanced Clerkship in General Surgery—UCSF Blue Service. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Reilly, Pellegrini

Senior clinical clerks participate in clinic, ward, and operating room with direct involvement in post- and pre-operative care. SURGERY

140.01B. Advanced Clerkship in General Surgery—UCSF Gold Service. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Reilly, Schrock

Senior clinical clerks participate in clinic, ward, and operating room with direct involvement in post- and pre-operative care. SURGERY

140.01C. Advanced Clerkship in General Surgery—SFGH Elective/Extremities Service. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Reilly, Lewis

Senior clinical clerks participate in clinic, ward, and operating room with direct involvement in post- and pre-operative care. SURGERY

140.01D. Advanced Clerkship in General Surgery—VAH General/Vascular Service. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Reilly

Senior clinical clerks participate in clinic, ward, and operating room with direct involvement in post- and pre-operative care. SURGERY

140.01E. General Surgery. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110.

Siperstein, O. Clark, R. Allen

Senior clinical clerks participate in clinic, ward, and operating room with direct involvement in post- and pre-operative care. SURGERY

140.02. Off-Campus Clerkship. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110.

Russell

Students serve as acting interns on general surgical service; participate in preoperative assessment, intraoperative 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110, Surgery 110 and 111.

Goldstone

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences and Medicine 110 or Surgery 110 and 111.

Rankin

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110 or Surgery 110 and 111.

Neighbor

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. (1.5 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. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111 and consent of instructor.

Schecter

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. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111.

Rankin

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. (1.5 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

140.12A. Adv Clerkship in Plastic/Reconstructive Surgery—UC. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Mathes

Students act as advanced clerks, taking part in operative procedures as well as postoperative management of the patient. Students will be exposed to patients with general reconstructive problems; trauma to the head and neck, hand surgery, and congenital anomalies. SURGERY

140.12B. Adv Clerkship in Plastic/Reconstructive Surgery—SFGH. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110, Medicine 110.

Mathes

Students act as advanced clerks, taking part in operative procedures as well as postoperative management of the patient. Students will be exposed to patients with general reconstructive problems; trauma to the head and neck, hand surgery, and congenital anomalies. SURGERY

140.13. General Surgery—VAF. (1.5 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. (1.5 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. (1.5 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. (1.5 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. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111. Clinic 40.

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

140.18. Liver Transplantation. (1.5 per week) Su, F, W, Sp. Prerequisite: Medicine 110, Surgery 110.

Ascher and Staff

Students will participate in evaluation of potential liver recipient (including HLA-typing, crossmatch, immune monitoring), observe the liver transplant procedure, participate in postoperative care (including immunosuppressive management and mechanisms of graft rejection). Student will attend pertinent conferences, clinics, and daily rounds. SURGERY

140.19. Advanced Clinical Surgery—VMC. (1.5 per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111. 4th-year standing.

Parks, Gladen

Senior clerkship responsibilities include participation as member of busy patient care team, with emphasis on pre- and postoperative care, supervised clinic and operating room assignments, and participation in departmental conferences. The aim is to provide exposure to a spectrum of elective and emergency surgical problems. SURGERY

140.21. Clinical Trauma Surgery—VMC. (1.5 per week) Su, F, W, Sp, SS1, SS2. Prerequisite: Surgery 110.

S. Parks, J. Davis

Subinternship responsibilities are to participate on a busy patient care trauma service emphasizing resuscitation, evaluation of injury, operating room participation, postoperative followup. There is also experience with non-operative management of trauma. The student will participate in departmental conferences. SURGERY

150.01. Research in Surgery. (1.5 per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Hunt

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 instructor. 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 calorie 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. (1.5) 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.

DMC 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. (1.5 per week) Su, F, W, Sp. UC Debas, SFGH Lewis, VA L. Way, DMC Heer, C V. Richards, PMC Russell

Residents, 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. Senior residents have certain additional administrative, teaching, and clinical responsibilities. SURGERY

452. Experimental Surgery Laboratory. (1.5 per week) Su, F, W, Sp. Restriction: 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. (1.5 per week) Su, F, W, Sp.

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. (1.5 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) F, W, Sp. Lab 3 hours.

Staff

Practical teaching experience in selected courses under the supervision of senior members of the staff. GEN DENT

Toxicology

200A. Introduction to Biochemical Toxicology. (4) § Sp. Prerequisite: Pharmaceutical Chemistry 203 or co-requisite. Lecture 4 hours.

Mehan

The metabolism and bioactivation of drugs, carcinogens, and other toxicants will be presented, and these examples will serve to illustrate how toxic substances alter and disrupt normal cellular processes at the molecular level. PHARM

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. (1.5 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. (1.5 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. (1.5 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. (1.5 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

150.01. Research in Urology. (1.5 per week) Su, F, W, Sp. Prerequisite: Must be third- or fourth-year medical student. Must have approval of chair, dean, and involved research faculty.

Carroll

Research project under the direction of a member of the Department of Urology. 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. (1.5) Su, F, W, Sp. Tanagho

Seminar includes study of the basic sciences and urologic roentgenology with members of the attending staff. UROLOGY

402. Urologic 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

490. Clinical Urology-SFGH. (1.5 per week) Su, F, W, Sp.

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