SURGERY (SURGERY)

SURGERY 110 Surgery Core Clerkship (3-12 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jessica Gosnell, Matthew Lin **Prerequisite(s):** Third-year standing.

Restrictions: UCSF medical students only.

Activities: Seminar, Clinical

Students will treat and follow-up patients when they are admitted to the surgical service. Students are expected to take calls once a week and participate in team rounds, in clinics, and in the operating room. Students will work both in the inpatient service and the outpatient clinic. Students are expected to do work-ups on the patients who present with acute surgical illness.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory), In Progress (IP, SP/UP) grading allowed Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? Yes

SURGERY 130.01 CIEx - Plastic Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): David Young
Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will join the clinical team to provide care for Plastic Surgery patients in the operating room, hospital, and outpatient setting.

School: Medicine

Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.02 CIEx - Colorectal Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Mika Varma, Hueylan Chern Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2-week immersive experience in colorectal surgery, particularly designed for Parnassus Integrated Student Clinical Experience (PISCES) students.

SURGERY 130.03 CIEx - Anorectal Diseases and Treatment (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Mika Varma, Hueylan Chern Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Anorectal complaints are common among patients of all ages in all clinical settings. This elective provides opportunities for students to learn common anorectal diseases and observe and participate in anorectal exams and office procedures.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.04 CIEx - Vascular and Podiatry Elective - VAMC-SF (1.5-3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Warren Gasper Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will have opportunities to recognize common diagnoses in vascular medicine, surgery and podiatric practice, observe common procedures, and compose treatment plans for these common conditions.

SURGERY 130.05A CIEx - Surgical Apprenticeship -General Surgery (1.5-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students may choose from one of the following services: Transplant, General Surgery, or Breast Surgery. Students will work exclusively with a faculty member, with the main focus in the clinical setting.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.05B CIEx - Surgical Apprenticeship -Breast (3-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Rita Mukhtar Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Breast Surgery, where they will work exclusively with a faculty member, with the main clinical focus in the OR, clinic, and tumor board.

SURGERY 130.05C CIEx - Surgical Apprenticeship -Transplant (3-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll, Shareef Syed **Prerequisite(s):** None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Transplant Surgery, where they will work exclusively with a faculty member, with the main clinical focus in the OR, tumor board, organ selection committee, and organ procurement runs.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.05D CIEx - Surgical Apprenticeship -Thoracic (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Johannes Kratz
Prerequisite(s): none

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Thoracic Surgery, where they will work with a faculty member and team, with the main clinical focus in the OR, clinic, and tumor board.

SURGERY 130.06 CIEx - Vascular Surgery - UCSF Parnassus (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Michael Conte
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course will provide an overview of the care and treatment of patients on the Vascular Surgery Service. Students will observe Vascular Faculty and Fellows in both out-patient and in-patient environments, as well as the operating room.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.07 CIEx - Innovation in Cardiac Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Tobias Deuse Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This collaboration with several programs in Cardiology will expose students to patients in an inpatient setting, provide a chance to see both open surgical and transcatheter procedures, and a comprehensive view of state-of-the art cardiac care.

School: Medicine

SURGERY 130.08 CIEx - Endocrine Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Wen Shen **Prerequisite(s):** None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Each student will be paired with 2-3 endocrine surgeons and gain experience in the outpatient, inpatient, operating room, and tumor board setting. It will provide an integrated view on disciplines approaching complex endocrine diseases.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? No

SURGERY 130.09 CIEx - Kidney Transplant Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Shareef Syed, Chris Freise **Prerequisite(s):** None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course is an opportunity for medical students to experience a multidisciplinary field. Students will gain insights into the surgical, medical, radiologic and pathologic aspects of kidney transplant surgery.

SURGERY 130.10 CIEx - Surgical Skills Coaches Training (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Hueylan Chern, Merisa Piper Prerequisite(s): Surgery 110 Core Clerkship

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend the first week in the surgical skills center learning and practicing knot tying, suturing and laparoscopic techniques to achieve competency in the simulation setting. They will then spend the second week in the OR.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.11 CIEx - Treatment of Breast Cancer (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jasmine Wong
Prerequisite(s): SURGERY 110

Restrictions: 3rd-year student in good academic standing.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This integrative CIEx will allow students to experience and better understand how surgeons and physicians work together to treat breast cancer in a multi-disciplinary fashion. The student will have a clear schedule rotating between clinic and OR.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.12 CIEx - Pediatric Surgery (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Lan Vu **Prerequisite(s):** no

Restrictions: Medical Students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2-week immersive experience in pediatric surgery.

SURGERY 130.29 CIEx - Integrative Multidisciplinary Endocrine Neoplasia (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Sanziana Roman, Wen Shen Prerequisite(s): N/A

Restrictions: Foundations 2 students.

Activities: Clinical

The Bridges Curriculum CIEx provides medical students in F2 opportunities to broaden/enhance their professional development in health care settings different from those of their core clerkships. This integrative CIEx will allow students to understand better how surgeons and physicians work in a multidisciplinary fashion in a disease-based program that is tailored to give patients the best possible care. The student will have exposure to endocrine neoplasia patient care.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 130.85 CIEx Trauma Surgery - Fresno (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein **Prerequisite(s):** SJV PRIME Students must contact the Fresno F2 Coordinator for assistance in scheduling this elective.

Restrictions: CIEx is for SJV PRIME students only in F2

Activities: Clinical

Provides exposure to critically injured patients at a busy Level 1 trauma center. Students will learn to apply Advance Trauma Life Support (ATLS) principles to manage injured patients and will participate in patients subsequent intra and post-operative care. Students will learn basic principles for managing critically injured patients.

School: Medicine

Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

SURGERY 130.86 CIEx Vascular Surgery - Fresno (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Leigh Ann O'banion **Prerequisite(s):** SJV PRIME students must contact the Fresno F2 Coordinator for assistance in scheduling this elective.

Restrictions: CIEx is for SJV PRIME students only in F2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course will provide an overview of the care and treatment of patients on the Vascular Surgery Service. Students will observe Vascular Faculty and Fellows in both out-patient and in-patient environments, as well as the operating room.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.01B Advanced General Surgery -Colorectal (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Mika Varma Prerequisite(s): Surgery 110, Medicine 110

Restrictions: None

Activities: Clinical, Independent Study, Workshop

Clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of colorectal surgery; hands-on experience in the operating room, hospital floors, and clinic. Students will participate in pre/post operative care of patients with a wide range of disease of the colorectal system including colon, anal and rectal cancer, inflammatory bowel disease, anorectal diseases, and pelvic floor disease.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.01C Advanced General Surgery -Surgical Oncology (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Kimberly Kirkwood, Adnan Alseidi Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: 1 student per block.

Activities: Clinical, Independent Study

Provides intensive exposure to the broad spectrum of conditions encountered in the practice of surgical oncology; extensive experience in the operating room, ward, intensive care unit, and clinic. Students participate in pre/postoperative care of patients with a wide range of oncologic disease processes.

SURGERY 140.01E Advanced General Surgery -Breast (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Cheryl Ewing Prerequisite(s): Medicine 110 and Surgery 110.

Restrictions: None.

Activities: Clinical, Independent Study, Project

This clerkship provides an in-depth, comprehensive experience in the diagnosis and surgical treatment of patients with both benign breast disease and breast cancer. Both inpatient and outpatient care will be important components of breast disease, the importance of the preoperative evaluation of patients and establishment of an evidence-based approach to breast care will be integrated into the curriculum.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.01F Advanced General Surgery -Highland Hospital - AHS (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Lucas Thornblade, Lara Senekjian **Prerequisite(s):** Surgery 110 and Medicine 110.

Restrictions: None

Activities: Clinical, Independent Study

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of general surgery. This clerkship is structured so the student will serve as acting intern on the general surgery service and participate in the pre-operative evaluation, intraoperative management, and post operative care of surgical patients.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.01G Advanced General Surgery - GI / General (Red) (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin Prerequisite(s): Medicine 110 and Surgery 110

Restrictions: None

Activities: Clinical, Conference

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of General Surgery (Hepatobiliary, Foregut, Beriatric and Endocrine) with hands-on experience in operating room, hospital floor (including ICU), clinic settings and in the evaluation of ER patients. The clerkship is structured so the students will participate in the pre and post operative care of patients.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.02A Off-Campus Clerkship (3-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin **Prerequisite(s)**: Core curriculum in basic sciences and Medicine 110 or Surgery 110

Restrictions: none

Activities: Clinical

Clinical clerkship in approved hospitals in other universities by special arrangement and approval of the director for medical education of the department and the dean.

SURGERY 140.02B Off-Campus Clerkship (3-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin **Prerequisite(s):** MEDICINE 110, SURGERY 110

Restrictions: None

Activities: Clinical

Clinical clerkship in approved hospitals in other universities by special arrangement and approval of the director for medical education of the department and the dean.

School: Medicine

Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? Yes

SURGERY 140.04 Advanced Vascular Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Michael Conte Prerequisite(s): Medicine 110, Surgery 110.

Restrictions: None

Activities: Clinical, Independent Study

Intensive exposure to the broad spectrum of vascular disease presentations encountered in the practice of vascular surgery. Hands-on experience in the operating room, hospital ward/ICU, and outpatient clinic as part of the team. Students will participate in pre and post-operative care of patients, consultations, evaluation and management of vascular conditions and treatment approaches (including vascular medicine, open and endovascular surgery).

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.07 Non-Invasive Vascular Laboratory (3 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Warren Gasper **Prerequisite(s):** Surgery 110

Restrictions: Restricted to 1 UCSF fourth year medical student per two weeks.

This two-week elective will offer medical students the opportunity to experience the UCSF non-invasive vascular laboratory and build a solid foundation in routine non-invasive studies performed in the evaluation of vascular disease. Students will participate in conducting and interpreting ultrasound studies of arterial and venous systems of the abdomen, limbs, head and neck, and brain and will attend didactic sessions hosted by the vascular surgery service, including Vascular Grand Rounds.

SURGERY 140.08 Advanced Endocrine Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Wen Shen Prerequisite(s): SURGERY 110, MEDICINE 110

Restrictions: none

Activities: Clinical

This clerkship provides an in-depth experience in Endocrine Surgery - specifically, the workup and management of surgical disorders of the thyroid/parathyroid/adrenal glands and the endocrine pancreas. Students will participate in the operating room, follow patients, and attend multiple outpatient clinics gaining hands-on experience in the diagnosis and treatment of patients with endocrine surgical disorders. Students expected to prepare a case presentation with accompanying discussion.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.10 Advanced Cardiothoracic Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Tobias Deuse Prerequisite(s): SURGERY 110\r\n\r\nMEDICINE 110

Restrictions: None

Activities: Clinical

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of cardiothoracic surgery with extensive experience in the OR, ward, clinic and ICU. Students will participate in the care of patients with acquired cardiovascular and thoracic disease, including coronary artery disease, valvular heart disease, diseases of the great vessels, and thoracic oncology w/ exposure to thoracic transplantation (heart/lung), ECMO and ventricular assist devices.

SURGERY 140.12 Advanced Plastic & Reconstructive Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Scott Hansen Prerequisite(s): Surgery 110

Restrictions: 4th year medical student standing.

Activities: Clinical, Independent Study, Project

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of plastic surgery. There is handson experience in the operating room and clinic. Students will participate in the care of patients with congenital anomalies, traumatic deformities, acquired defects requiring reconstruction including free tissue transfer and hand surgery, and patients choosing to have elective surgery.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.14 Advanced Surgical Critical Care -Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein **Prerequisite(s):** Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides exposure to critical surgical illness in a busy ICU setting. The student serves as an acting intern, and will involve themselves in the pre, intra, and post-operative management of patients on the service. Students will learn basic principles for managing critically ill surgical patients, including ventilator management, invasive hemodynamic monitoring, invasive bedside procedures, mechanical ventilation, nutritional therapy, renal replacement therapy and ethical issues.

School: Medicine

SURGERY 140.15 Burns Surgery - Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein **Prerequisite(s):** Surgery 110

Restrictions: 4th year standing.

Activities: Lecture, Clinical

Provides students exposure to the burned patient at a regional burn center. Students will serve as an acting intern, and will be expected to have hands-on participation in care of patients in the operative, ward and intensive care unit settings. During their rotation, students will learn the principles of burn resuscitation, operative and non-operative burn wound management, as well as gain exposure to surgical critical care as it pertains to burn surgery.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.16 Advanced Pediatric Surgery and Trauma (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Aaron Jensen Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: none

Activities: Clinical

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of pediatric surgery with handson experience in the operating room, clinic, and trauma bay. The clerkship is structured so the students will participate in the care of patients with congenital anomalies, childhood tumors and other acquired childhood illnesses including traumatic injury. This course aims to incorporate the student as a team member in pediatric surgery.

SURGERY 140.17 Advanced Pediatric Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Lan Vu Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: 1 Student per block.

Activities: Clinical, Independent Study, Project

Intensive exposure to the broad spectrum of conditions encountered in the practice of pediatric surgery with hands-on experience in the operating room and clinic. Students will participate in the care of patients with congenital anomalies, childhood tumors and other acquired childhood illnesses. This course aims to incorporate the student as a team member in Pediatric Surgery.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.18 Advanced Solid Organ Transplantation (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll **Prerequisite(s):** Medicine 110, Surgery 110

Restrictions: 1 student per block.

Activities: Clinical, Independent Study

Intensive exposure to diseased and live donor kidney, liver and pancreas transplantation. Students participate in the pre-operative evaluation and management, intraoperative management, and post-operative care (including immune monitoring) of transplant recipients and donors. Participate on clinical rounds, attend teaching conferences and seminars. The student will scrub in on organ donor operations as well as organ transplants.

SURGERY 140.19 Advanced General Surgery -Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein
Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides an intensive exposure to a busy combined emergency general surgery (EGS) and trauma service, with emphasis on EGS. Students will serve as an acting intern, and learn to manage inpatients on the wards and step down unit, as well as evaluate new EGS patients via consultations from the emergency room and inpatient wards. Students are also expected to involve themselves in pre, intra, and post-operative management of patients on the service.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.20 General Surgery Oncology -Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein Prerequisite(s): Completion of core clerkship in Surgery

Restrictions: 4th Year Medical Students

Activities: Lecture, Clinical

Provides exposure to a busy combined general, endocrine, hepatobiliary and surgical oncology service. Students will gain exposure to a wide range of surgical oncologic disease, including endocrine, hepatobiliary, and breast cancers. They will also gain exposure to management of advanced hernias, and benign endocrine, hepatic, and pancreatic surgical disease. They will participate in the pre, intra, and postoperative care of these complex patients in both inpatient and outpatient settings.

SURGERY 140.21 Advanced Trauma Surgery -Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein, James Davis Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides exposure to critically injured patients at a busy Level 1 trauma center. Students will learn to apply ATLS principals to manage injured patients presenting to the ED, and will participate in patients' subsequent intra and post-operative care. Students will learn basic principles for managing critically injured patients in the ICU, including but not limited to vent and, intracranial hypertension management, invasive hemodynamic monitoring, invasive bedside procedures, and ethical issues.

School: Medicine Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.22 Advanced Trauma & General Surgery (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Andre Campbell **Prerequisite(s):** Surgery 110 and Medicine 110

Restrictions: None

Activities: Clinical, Independent Study

Intensive exposure to the broad spectrum of conditions encountered in the practice of general and trauma surgery at a Level 1 Trauma Center with hands-on experience in ED, operating room, hospital floor (including ICU), and clinic settings. Students will participate in the pre- and postoperative care of patients with a wide range of trauma and acute surgical emergencies.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

SURGERY 140.23 Advanced Surgical Critical Care (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Lucas Thornblade, Lara Senekjian Prerequisite(s): Completion of all third year clinical clerkships.

Restrictions: Limited to two students per block.

Activities: Clinical, Independent Study

Clinical activity full time. 4th year student will be an acting intern on the surgical ICU Service and participate in all aspects of caring for surgical patients in the ICU.

SURGERY 140.24 Advanced Vascular Surgery -Fresno (6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein **Prerequisite(s):** Surgery 110

Restrictions: n/a

Activities: Clinical

Provides students with exposure to the broad spectrum of conditions found in vascular surgery. The students will serve as an acting intern on the vascular surgery service. Hands-on participation by the student is expected in the operating room, wards, intensive care unit and ambulatory care settings. Students will participate in the pre, intra, and postoperative care of patients, and will be introduced to the full range of vascular therapies, including open and endovascular techniques.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 140.25 Surgical Internship Experience on Endocrine Surgery (6 Units)

Offered In: Fall, Winter, Spring

Instructor(s): Sanziana Roman **Prerequisite(s):** MEDICINE 110, SURGERY 110, plus at least one other SURGERY 140 elective.

Restrictions: This course is restricted to students with plans to pursue a surgical residency.

Activities: Clinical

This clerkship provides an in-depth experience for students who want to prepare for life as a surgery intern- specifically, the day-to-day management of patients, writing orders, working with nursing staff, taking call, participating in the operating room, following patients, and attending multiple outpatient clinics. Includes hands-on experience in the diagnosis and treatment of patients with endocrine surgical disorders of the thyroid/parathyroid/adrenal glands and the endocrine pancreas.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 150.01 Research in Surgery (3-24 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Amar Nijagal Prerequisite(s): Consent of instructor.

Restrictions: none

Activities: Fieldwork, Project, Lab science

Opportunities for research in one of the departmental laboratories by arrangement with the instructor.

SURGERY 160.02 OR Assist: Beginner Surgical Skills (1 Units)

Offered In: Winter, Spring

Instructor(s): Matthew Lin
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Clinical

Operating Room (OR) Assist is an elective to provide medical students with an opportunity to participate in surgical procedures at UCSF affiliated Operating Rooms. Students will follow the patient from the preoperative setting, into the intraoperative theater, and into the postoperative setting. Students will be expected to sign up for a minimum of three evening or weekend shifts in the Operating Room resulting in a total of 22 clinical hours.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.03 OR Assist: Clinical Experience (1 Units)

Offered In: Spring

Instructor(s): Matthew Lin Prerequisite(s): None, SURGERY 160.02

Restrictions: none

Activities: Lecture, Clinical

Operating Room (OR) Assist: Clinical Experience is an elective that provides medical students with the opportunity to participate in surgical procedures at UCSF affiliated operating rooms. Students will be paired with a surgical mentor and scrub in on a minimum of 3 surgeries. Review sessions on surgical skills, gowning, gloving, sterile procedures and operating room etiquette will be provided.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.07 Surgery Donor Runs (1 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll, Shareef Syed **Prerequisite(s):** None.

Restrictions: None.

Activities: Clinical

The medical student will be invited to participate in donor runs for retrieval of intra thoracic and intra abdominal organs for transplant. The student will scrub in on organ donor operations. Anatomy is an important component of medical student education. Though partially addressed by exposure to cadavers, the dynamic interaction with brain dead heart beating donors is a much more realistic opportunity for learning.

SURGERY 160.08 The Organ Transplant Experience (1.5 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll, Shareef Syed Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Clinical

This elective offers medical students the opportunity to learn about solid organ transplantation, and how various types of medical providers impact the care of donors and recipients. The elective includes a lecture series (approximately six lectures) about solid organ transplant and organ procurement. Students enrolled in the elective are encouraged to attend at least one organ procurement experience with the thoracic and/or abdominal UCSF organ procurement teams.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.10 Cardiothoracic and Vascular Interventions (1-1.5 Units)

Offered In: Fall

Instructor(s): Shant Vartanian Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

The course will introduce students to the anatomic and physiologic correlations associated with the clinical syndromes of peripheral vascular disease, cerebrovascular diseases, as well as other specific topics in cardiology. Through a multi-disciplinary approach (vascular surgery, interventional radiology and interventional cardiology), endovascular and surgical approaches to the treatment of these diseases will be highlighted, and critical research questions and methodologies will be explored.

SURGERY 160.11 Intermediate Surgical Training for Medical Students (1 Units)

Offered In: Fall, Winter

Instructor(s): Matthew Lin Prerequisite(s): None, SURGERY 160.02

Restrictions: None

Activities: Lecture, Workshop

Students who completed the OR Assist: Beginner Surgical Skills (160.02) are invited to practice their basic surgical knot tying and suturing skills and their advanced laparoscopic knot tying skills. Students will attend five classes in the Surgical Skills Lab taught by faculty and residents in the surgery department and are expected to practice outside of these sessions with their own equipment. A final assessment will be held at the completion of the course.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.12 Advanced Surgical Training for Medical Students (1 Units)

Offered In: Winter

Instructor(s): Matthew Lin

Prerequisite(s): OR Assist-Surgical Training for Medical Students (Surgery 160.02) AND Intermediate Surgical Training for Medical Students (Surgery 160.11)

Restrictions: N/A

Activities: Clinical, Independent Study

Medical students who completed Surgery 160.02 AND Surgery 160.11 are invited to build upon the skills learned in previous electives such as knot tying, suturing, cautery, and laparoscopy. Students will attend four sessions in the Surgical Skills Lab taught by attendings and residents in the surgery department, and are expected to practice outside of these sessions with their own equipment. Students will receive feedback from attendings to help prepare for clerkships and careers in surgery.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.15 Exploring Plastic Surgery (1 Units)

Offered In: Fall

Instructor(s): Matthew Lin, Scott Hansen Prerequisite(s): None

Restrictions: None

This lunch-time elective will introduce students to the various subspecialties within the field of Plastic and Reconstructive Surgery. Faculty members will speak about their clinical work as well as research projects. At the end of the elective, we will host a panel of residents to discuss the process of applying to residency in Plastic Surgery.

SURGERY 160.16 OASIS Clinic Care Elective (1 Units)

Offered In: Fall, Winter, Spring

Instructor(s): Scott Hansen
Prerequisite(s): None

Restrictions: None

Activities: Clinical

The OASIS Clinic Longitudinal Elective is housed within the OASIS Clinic at ZSFG. This is an in-person experience where students will be able to hone their clinical skills while interacting with low income and medically underserved patients. With the direct supervision of either the attending or clinical staff, medical students will be able to do medical intake, help perform minor procedures such as I&D of wound abscesses, and excisions of subcutaneous masses and foreign bodies.

School: Medicine

Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 160.17 Trauma Surgery Elective (1 Units)

Offered In: Fall, Spring

Instructor(s): Joseph Cuschieri Prerequisite(s): None

Restrictions: None

Activities: Lecture

This Trauma Surgery Elective introduces first- and second-year medical students to the fundamentals of trauma care. Through lectures and hands-on skill sessions, students will explore topics such as airway management, hemorrhage control, trauma imaging, and nonoperative and operative care. The course also highlights the career pathway and scope of trauma surgery, as well as the challenges faced in the field.

School: Medicine Department: Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory) Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

SURGERY 198 Supervised Study (1-6 Units)

Offered In: Fall, Winter, Spring, Summer

Instructor(s): Staff Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

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