

SURGERY (SURGERY)

SURGERY 699 – INDEPENDENT STUDY

0-5 credits.

Independent study projects as arranged with faculty or instructional staff.

Requisites: Consent of instructor

Course Designation: Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2024

SURGERY 910 – INDEPENDENT READING AND RESEARCH IN SURGERY

2-8 credits.

Independent research under the direct supervision of Surgery, Orthopedics, or Urology faculty. Projects are individualized to meet research goals within the context of faculty research needs.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2024

SURGERY 911 – AORTIC DISEASE FROM BENCH TO BEDSIDE

2 credits.

The basics of vascular biology, as it applies to abdominal aortic aneurysm disease. Gain an understanding of pathophysiology of aneurysm disease, animal models of aortic aneurysm, and knowledge on experimental approaches to develop biomarkers and therapeutic strategies. Experience medical treatment of aneurysm disease in the clinic, and how risk factors identified from basic science techniques are applied at the bedside.

Requisites: MED SC-M 810, 811, 812, and 813

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2023

SURGERY 912 – AORTIC DISEASE FROM BENCH TO BOARDROOM

2 credits.

The anatomy applicable to abdominal aortic aneurysm repair, how this influenced the development of endografts, and how that development is regulated. Investigate the issues involved in aneurysm screening, and experience aneurysm screening in the clinic and aneurysm repair in the operating room. Discuss what is involved in medical device regulation, and how the medical device industry interacts with physicians to develop and distribute technology. Evaluate how the cost of medical devices is distributed to patients.

Requisites: MED SC-M 810, 811, 812, and 813

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

SURGERY 919 – INDIVIDUALIZED PHASE 3 CLINICAL ELECTIVE IN SURGERY

2-4 credits.

Care for hospitalized patients on general surgery or surgical specialty services. Admit new patients, round on previously admitted patients, participate in multidisciplinary rounds, and work to transition patients to the next level of care. Evaluate and manage patient with both common inpatient conditions and medically complex patients requiring collaboration with consulting specialties. Direct supervision by house staff and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Complete other patient care related learning activities as assigned by instructors.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2024

SURGERY 920 – GENERAL SURGERY ELECTIVE

2-4 credits.

Direct supervision by General Surgery senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2024

SURGERY 938 – INPATIENT ACTING INTERNSHIP-SURGERY

4 credits.

Provides an in-depth exposure to inpatient and operative management of complicated surgical patients. Work under the direct supervision of a senior resident, fellows and faculty. This rotation will provides an opportunity to function at the intern level and play an active role in inpatient management of surgical patients.

Requisites: MED SC-M 810, 811, 812, and 813

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

SURGERY 939 – ADULT ORTHOPEDICS FOR THE FUTURE ORTHOPEDIST ELECTIVE

2-4 credits.

Direct supervision by orthopedic Surgery senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Present a case of interest based on involvement in and a brief literature review on the treatment or condition. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 940 – ADULT ORTHOPEDICS FOR THE NON-ORTHOPEDIST ELECTIVE**

2-4 credits.

Direct supervision by community orthopedic senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 944 – UPPER EXTREMITY ORTHOPAEDIC CLERKSHIP-MARSHFIELD CLINIC**

2-12 credits.

Clinical elective for fourth year medical students.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2021**SURGERY 948 – OTOLARYNGOLOGY ELECTIVE**

2-4 credits.

Direct supervision by Otolaryngology senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 954 – PERIPHERAL VASCULAR ELECTIVE**

2-4 credits.

Direct supervision by Peripheral Vascular Surgery senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 956 – PLASTIC AND RECONSTRUCTIVE SURGERY ELECTIVE**

2-4 credits.

Direct supervision by Plastic Surgery senior residents and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024

SURGERY 960 – TRANSPLANTATION ELECTIVE

2-4 credits.

Direct supervision by Transplant fellows and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 962 – SURGICAL CRITICAL CARE ELECTIVE**

2-4 credits.

Direct supervision by General Surgery senior residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 963 – CARDIOTHORACIC SURGERY ELECTIVE**

2-4 credits.

Direct supervision by Cardiothoracic fellows and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned general surgery service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 967 – UROLOGY ELECTIVE**

2-4 credits.

Direct supervision by Urology residents, fellows, and attending physicians. Participate in regularly scheduled supervisor-student meetings, which involve some or all of the following: rounding on service patients, participating in scheduled operative procedures, presenting cases and teaching topics, and discussing patient cases. Complete independent activities including some or all of the following: reading about patient conditions and preparing for direct patient care as needed. Attend conferences associated with the assigned Urology service. Complete other patient care related learning activities as assigned by instructors; these are dependent on the individual student, the patients under the student's care, and the location.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**SURGERY 973 – OPTIMIZING VALUE, QUALITY AND SAFETY IN HEALTHCARE**

2 credits.

An in-depth understanding of the key concepts of value, quality and safety is critical to the education of future physicians. The majority of adverse events experienced by hospitalized patients occur in surgery. Surgery offers the ideal setting to explore these three components critical to improving the US healthcare system. Examine factors that influence the care we provide and critically consider the value of this care. Observe efforts to improve value in surgery focusing on quality, safety and appropriate utilization of critical resources and consider areas for improvement. Follow patients in all processes of care from clinic, to the operating room, through their postoperative course, to discharge, and consider how important measures to secure safety and quality are encountered and impact care in the clinical arena. Consider price and allocation of scarce resources. Gather information for their analysis of the patient experience.

Requisites: MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**SURGERY 974 – PATIENT EDUCATION AS A STRATEGY FOR ADVOCACY**

2 credits.

Develop knowledge of how people learn, adult learning principles, and how these apply to medicine. Learn and practice effective interpersonal communication techniques. Reflect on your own strategies for communicating with patients, and develop and implement a plan to improve your communication with patients. Effective communication and patient education allows physicians to act as advocates for their patients. Discuss barriers to patient education, and strategies to mitigate those barriers. Gain insight into communication and education strategies for patients with communication issues.

Requisites: MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024

SURGERY 975 – MULTIDISCIPLINARY APPROACHES TO COLON CANCER PREVENTION/TREATMENT

2 credits.

Explore the reasons behind failure of colorectal cancer screening programs. Learn the standard of care for prevention, diagnosis, and treatment of colorectal cancer. Focus on all facets of the disease, with active engagement in dialogue to improve screening programs for colorectal cancer. Learn to identify methods to improve medical care and population health. Explore background studies to integrate emerging information on individual's biologic and genetic risk with population-level factors when deciding upon prevention and treatment options. Work with the various members of the healthcare team involved in treating colorectal cancer and educate the public on the importance of colorectal cancer screening.

Requisites: MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**SURGERY 976 – THE SCIENCE OF OBESITY AND DIABETES**

2 credits.

The science of diabetes and obesity as it correlates to the clinical setting. The history of endocrinology and discovery of insulin will provide the basis for understanding hormonal mechanisms controlling fuel metabolism and how these processes become dysfunctional in different disease states. Topics will include pancreatic and extrapancreatic control of metabolism, and diseases linked with obesity, including PCOS, type 2 diabetes, and cancer. Lifestyle, medical, and surgical treatments of obesity and diabetes, including pharmacologic mechanisms of insulin and non-insulin diabetes therapeutics and bariatric surgery, will be highlighted. The public health perspective will shine light on societal factors that influence obesity and diabetes care. Provides an advanced scientific foundation with which to approach evidence-based care and treatment of individuals with obesity and/or diabetes.

Requisites: MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**SURGERY 977 – INJURY AND VIOLENCE PREVENTION**

4 credits.

The concept of injury prevention is inherently challenging, despite the systemic global public health problem of violence and injuries. Provides a foundation to approach injury prevention and control. Incorporates curriculum from TEACH-VIP (Training, Educating, and Advancing Collaboration in Health on Violence and Injury Prevention).

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2020**SURGERY 980 – SEX, GENDER, AND SEXUALITY HEALTH EQUITY**

2 credits.

An overview of how concepts of sex, gender, and sexuality in society and medicine impact medical care and lived experience for patients who are LGBTQ, transgender, gender-diverse and/or have variations in sex characteristics (VSC). Topics include shared decision-making, allyship, trauma-informed care, gender-affirming care, and unique health disparities in patients who are LGBTQ, transgender, gender-diverse and/or those with VSC. Gain insight into patient experience of medical care through patient-centered shadowing/observer opportunities.

Requisites: MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**SURGERY 981 – MINDFULNESS TRAINING FOR RESIDENCY**

1 credit.

Gain familiarity with Mindfulness-Based Stress Reduction interventions that have been shown to increase physician well-being and build resiliency. Cultivate non-judgmental and calm awareness of the present moment. Learn and practice formal and informal mindfulness meditation practices. Research mindfulness skills and their benefits to physicians. Understand guided mindful activities. Adapt individualized mindfulness techniques.

Requisites: Declared in Doctor of Medicine program with fourth year standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**SURGERY 982 – SURGICAL AND PROCEDURAL CARE EDUCATION TEACHING ELECTIVE**

2 credits.

Learn effective methods of teaching procedural skills and of small group case-based learning (CBL) facilitation. Demonstrate effective teaching strategies when instructing more junior medical students in in-person procedural skills (e.g., suturing, knot-tying, ultrasound/doppler, intubation) and facilitating virtual CBL learning. Bolster mastery in surgical and procedural education.

Requisites: MED SC-M 810, 811, 812, and 813 and declared in Doctor of Medicine with fourth-year standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024

SURGERY 983 – COMMON ANORECTAL DISEASES

2 credits.

The diagnosis and treatment of common anorectal diseases in the context of anatomical and physiological basis as it correlates to the clinical setting. The medical and surgical treatment of anorectal disorders will be discussed from the historical background to modern management algorithms. Topics will include fissures, perirectal abscess, fistula-in-ano, external and internal hemorrhoidal diseases, pruritus ani, fecal incontinence, rectal prolapse, obstructive defecation, sexually transmitted infections, and various anorectal manifestations of irritable bowel disease. Symptomatic presentation and natural progression of each of these disease processes will be discussed. Provide a sound scientific foundation with which to approach evidence-based diagnosis, triage, and treatment of patients with acute versus chronic anorectal disorders.

Requisites: MED SC-M 810, 811, 812, and 813

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024