

Internal Medicine (INTM)

Course information contained within the Bulletin is accurate at the time of publication in July 2024 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

INTM M118. Intro to Rheumatology. 0 Credit Hours.

Course Attributes: M5

Repeatability: This course may not be repeated for additional credits.

INTM M119. Introduction to Geriatric Medicine. 0 Credit Hours.

With the increasing proportions of older adults worldwide, all graduating medical students will need to have a basic understanding and competencies in caring for older adult patients regardless of the medical specialties they end up choosing (except for pediatrics). Consequently, this elective will help students meet this need through exposure to basic geriatrics concepts/syndromes including ageism, polypharmacy, cognitive impairment, and malnutrition/failure to thrive.

Repeatability: This course may be repeated for additional credit.

INTM M202. Introductory Elective. 0 Credit Hours.

This generic first and second year Medicine elective serves as an introduction to a special topic in the Department of Internal Medicine. Topics vary from semester to semester and may include an extension of a content area already covered in the required curriculum, an introduction to a new topic or research issue, or exposure to a clinical discipline. First and second year electives are optional and do not impact graduation requirements. Electives are scheduled for seven two-hour sessions each, for a total of fourteen contact hours. Student interest and faculty availability determine topics offered each semester.

INTM M203. Introduction to Integrative Medicine. 0 Credit Hours.

The goal of this elective is to introduce the field of Integrative Medicine to early medical students. Integrative medicine is informed by scientific evidence and utilizes all appropriate therapies, both conventional and complementary, to treat patients with a coordinated, holistic, and patient-focused approach for health care and wellness. An Integrative Medicine elective is aligned with the LKSOM mission dedicated to patient-centered care, as the core principles of Integrative Medicine emphasize the therapeutic relationship between practitioner and patient.

Repeatability: This course may be repeated for additional credit.

INTM M213. Introduction to Nephrology. 0 Credit Hours.

This elective provides students with an overview of chronic kidney disease, including epidemiology, detection, and management. Students have the opportunity to participate in the American Society of Nephrology MAPS (Mentoring and Assessment Program) during this elective - a program to enhance early exposure to this subspecialty. This course is structured to provide didactic and hands-on exposure to chronic kidney disease evaluation and management. The educational experience includes opportunities to learn screening techniques in at-risk populations, talk with patients with kidney disease, end-stage renal disease and kidney transplantation, and visit an active dialysis unit under the supervision of nephrology faculty.

Repeatability: This course may not be repeated for additional credits.

INTM M242. Mindfulness Meditation: Biological and Psychological Underpinnings. 0 Credit Hours.

This elective will address the fundamentals of mindfulness meditation and instruct the student on how to begin and cultivate a practice of mindfulness of their own to reduce stress and attend more to the here-and-now moments of their lives. We will discuss the important contributions of Jon Kabat-Zinn, Tara Brach, Sharon Salzberg, Richard Davidson and Jack Kornfield, and review current studies endorsing the use of mindfulness meditation in the practice of medicine for pain, anxiety and many other pathologies.

INTM M246. Early Clinical Reflections: Literature and Writing about Patient Encounters. 0 Credit Hours.

This elective will address issues raised by initiation into the realm of clinical medicine. In learning to take medical histories and perform physical examinations, medical students gain access to privileged and detailed information about the lives and bodies of patients. The elective will provide a format for discussing reactions to this process. Readings will include essays about, and fictional descriptions of, clinical encounters by Oliver Sacks, John Stone, Richard Selzer, William Carlos Williams, and others. Participants will write three brief pieces in either fictional or essay form.

INTM M285. Intro to Palliative Care. 0 Credit Hours.

As early as the third year of medical school, students are faced with medical and ethical issues surrounding end-of-life care. Too often, this is without solid introduction to palliative care medicine and personal reflection on what a "good death" entails. This elective will provide information about end-of-life care through lectures, readings, and shadowing opportunities, and will also allow time for student reflection through journaling and small group discussion. It will be a foundation for medical students to begin a career-long endeavor to provide compassionate, appropriate, multidisciplinary care to dying patients and those suffering through chronic illness.

Repeatability: This course may not be repeated for additional credits.

INTM M300. Medicine Elective. 0 Credit Hours.

This course will enable students to develop a basic understanding of the fund of knowledge and types of medical problems seen in this specialty; to develop a basic understanding of the medical decision making process involved in the practice; and to develop an understanding of and practice of medical interpersonal communication and professionalism.

Repeatability: This course may be repeated for additional credit.

INTM M301. Medicine. 0 Credit Hours.

The Internal Medicine clerkship is a 6-week rotation during which students are exposed to common medical disorders seen in the inpatient setting. Students apply clinical reasoning to diagnose common medical diseases seen in internal medicine. Students are assigned to an inpatient team and are an integral part of that team. They participate in the care of the patients admitted to their service. Students learn about the work-up, diagnosis, and treatment of patients with common internal medicine diseases. They work collaboratively with other students, residents, attendings, consultants, and other healthcare workers. Students improve their skills and knowledge through independent learning and the support of their supervisors.

Course Attributes: M6

Repeatability: This course may not be repeated for additional credits.

INTM M305. Career Exploration of Geriatric Medicine. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M312. Career Exploration of Hematology/Oncology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M313. 3rd Year 2 Week Away Healthcare Elective. 0 Credit Hours.

Students may receive credit for a 2-week away experience in healthcare. This can include a clinical or non-clinical experience. The student must be supervised and evaluated by a person with a position in the organization where the experience is taking place. The experience must be arranged by the student and approved by the Associate Dean for Clinical Education.

Repeatability: This course may be repeated for additional credit.

INTM M319. Career Exploration of Palliative Care. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M321. Career Exploration of Infectious Diseases. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M333. Career Exploration of Medical Toxicology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M357. Career Exploration of Inpatient Pulmonary Medicine. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M364. Career Exploration of Nephrology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M374. Career Exploration of Cardiology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M375. Career Exploration of Rheumatology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M380. Career Exploration of Endocrinology/Metabolism. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M381. Medical Subspecialties. 0 Credit Hours.

This course will enable students to develop a basic understanding of the fund of knowledge and types of medical problems seen in this specialty; to develop a basic understanding of the medical decision making process involved in the practice; and to develop an understanding of and practice of medical interpersonal communication and professionalism.

Repeatability: This course may be repeated for additional credit.

INTM M390. Career Exploration of Gastroenterology. 0 Credit Hours.

This elective will allow students to gain exposure to the specialty and the types of health conditions experienced by patients seen by providers in this specialty as healthcare team members.

Repeatability: This course may be repeated for additional credit.

INTM M419. Palliative Care/Hospice. 0 Credit Hours.

During this clinical elective students will work with the inpatient TUH Palliative Care Consult Team. Students will learn more about symptom and pain management, guide discussion and decision-making surrounding new diagnosis of life limiting illness or transition points in longstanding chronic illness.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M430. Pulmonary/Sleep Medicine. 0 Credit Hours.

This rotation is a 4 week course comprised of two weeks of pulmonary medicine and two weeks of sleep medicine which will cover commonly encountered sleep problems. We will review both the physiology of normal sleep and pathophysiology associated with sleep apnea, hypoventilation syndromes and insomnia.

Repeatability: This course may be repeated for additional credit.

INTM M449. LGBTQ and HIV Correctional Medicine. 0 Credit Hours.

This clinical elective will be spent on site at Episcopal hospital as well as The Mazzone Center in Philadelphia. The student will participate in both clinical sessions with patients in the two outpatient sites (HIV infected, at risk for HIV, and general LGBTQ+ care) and via telemedicine in the Pennsylvania Department of Corrections, as our HIV/DOC program cares for approximately 600+ incarcerated HIV positive patients at any given time. They will interact with patients both in the outpatient setting and in the prison setting, in conversations regarding their health care, mental health, nutritional status, treatment choices, living conditions, and comorbidities. Students will learn how prison both presents opportunities and barriers to care, and how transitions to freedom may jeopardize that health. Students will learn to provide culturally competent and friendly care to the LGBTQ+ community including prescribing gender-affirming hormones. Transgender patients are seen both as outpatients and in the DOC. The student will witness the degrees of sensitivity given to this population in the prison system, and the health care needs that are often overlooked in transgender/gender non-conforming people. Students will learn HIV therapy, medications used in prevention of HIV infection, and HCV therapy. They will learn about medication-assisted therapy for patients with substance use disorders and have the opportunity to interact with other members of the multidisciplinary HIV team, including HIV specialty pharmacists, case managers, and care coordinators.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M450. Allergy/Immunology. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M463. Ambulatory Medicine. 0 Credit Hours.

This clinical elective exposes students to outpatient primary care. Students will work directly alongside faculty members and be involved in all aspects of patient care, including taking a history and physical, behavioral change counseling, following up results, and inter-visit patient communication. There will be an emphasis on chronic disease management, preventive care, and the impact of social determinants of health on patient care. Students will receive individualized coaching to improve their clinical skills.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M464. Rural Medicine. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M466. General Internal Med/Inpatient. 0 Credit Hours.

Course Attributes: M2

INTM M467. Medicine Nicaragua. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M470. Cardiology. 0 Credit Hours.

Course Attributes: M2

INTM M471. Clinical Cardiac Electrophysiology. 0 Credit Hours.

This clinical elective will focus on the diagnostic and therapeutic procedural elements of Cardiac Electrophysiology. Students will gain exposure to device implant procedures (e.g., pacemakers, defibrillators, CRT, subcutaneous ICD, leadless pacemakers, cardiac contractility modification devices), device extraction (using laser and mechanical instruments), and ablation (e.g., SVT, VT, atrial fibrillation, atrial flutter). Students will also learn about anatomical and electrophysiologic mapping technology that facilitates EP procedures. Students will have the opportunity to participate in Cardiac EP academic and clinical rounds, ECG teaching with the Cardiology fellows, and reading on arrhythmia mechanisms and treatments.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M475. Right Heart Failure and Pulmonary Hypertension. 0 Credit Hours.

The clinical elective gives students an in-depth clinical exposure to the history, physical exam, diagnostic evaluation, and workup of patients with all forms of right heart failure, including those with pulmonary hypertension and chronic thromboembolic disease. There will be emphasis on the heart failure physical exam, interpretation of laboratory assessment, ECG, echocardiograms, CT Chest (with and without angiography), V/Q scan with SPECT imaging, pulmonary angiography, pelvic venography, invasive hemodynamic assessment under rest and exercise conditions including with gas exchange assessment with cardiopulmonary exercise testing (CPET).

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M476. Cardia Critical Care-CCU. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M480. Endocrinology. 0 Credit Hours.

This clinical elective will provide students exposure to clinical problems in Endocrinology, Diabetes and Metabolism from the standpoint of diagnosis and management. Students will enhance their ability to utilize basic biochemical and physiological knowledge in solving clinical problems. Students will assist in diagnosis and management of patients in outpatient setting under the direction of faculty members. They will be assigned hospitalized patients under the direction of attending physicians and house staff.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M486. HIV Outpatient Medicine. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M487. Women's Health. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M490. Gastroenterology. 0 Credit Hours.

This clinical elective will provide students with the opportunity to manage the care of assigned GI inpatients/outpatient consultations. Cases will be presented and discussed daily on rounds. Student will evaluate patients with GI problems, to perform concise consultations, and to develop diagnostic and therapeutic plans for each patient based on an understanding of the appropriate pathophysiology. Students spend time on inpatient GI consults, inpatient hepatology consults, and can spend time on advanced endoscopy, general endoscopy, or motility.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M505. Geriatric Medicine. 0 Credit Hours.

The course aims to expose learners to basic geriatric principles and prepares future physicians to care for older adults in their practice, regardless of what specialty they may go into. Learners can choose to take the elective for 2 weeks or 4 weeks, depending on their preference/schedule. Course contents are extrapolated from this validated study with corresponding pocket card (<https://agsjournals.onlinelibrary.wiley.com/doi/full/10.1111/jgs.16226>).

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M510. Hematology/Oncology. 0 Credit Hours.

This clinical elective provides the student with the opportunity to be an integral member of the Hematology Inpatient Consultative Service, which includes the management of classical hematological conditions (anemia, thrombocytopenia, leukopenia, bleeding, and clotting disorders) and malignant conditions (leukemia, lymphoma, multiple myeloma). The students will become familiar with common acute hematologic disorders, their workup, and their management. They will learn to interpret peripheral blood smears and how this will influence patient management.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M520. Infectious Diseases. 0 Credit Hours.

This clinical elective provides students with the opportunity to see in-patients as consultant physicians. Students will gain an understanding of the pathogenesis, diagnosis, disease course, and treatment of a wide variety of infectious diseases; and will gain a working knowledge of the antimicrobial agents used in hospitalized patients.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M521. Transplant Infectious Diseases. 0 Credit Hours.

This clinical elective gives students exposure to both the treatment and prevention of infection in solid organ transplant recipients and candidates. Students will be a part of a team caring for patients preparing for transplant or post-transplant. They will participate in the care of immunosuppressed inpatients in a consultative manner. Students will experience a diversity of solid organ transplant issues, ranging from nosocomial infections to opportunistic infections and from pre-transplant evaluation to end-of-life.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M529. Advanced Lung Disease. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M530. Medical ICU (MICU) - Critical Care. 0 Credit Hours.

The required critical care course will introduce students to the management of critically ill patients. Students are expected to follow their patients' progress and contribute to their care with supervision. Students will observe and assist as possible in procedures being performed in the ICU. Students will obtain exposure to assisted ventilation, palliative and end-of-life care.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M531. MICU/SICU. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M536. Ventilator Rehab. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M540. Medical Oncology. 0 Credit Hours.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

INTM M543. Advanced Internal Medicine. 0 Credit Hours.

This elective exposes students to outpatient primary care. Students will work directly alongside faculty members and be involved in all aspects of patient care, including taking a history and physical, counseling behavioral change, following up results, and inter-visit patient communication. There will be an emphasis on chronic disease management, preventive care, and the impact of social determinants of health on patient care. Students will receive individualized coaching to improve their clinical skills. Students will also participate in a didactic series with the internal medicine residents and lead a case-based, evidence-based medicine session on a clinical topic.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M550. Ambulatory Pulmonary Medicine. 0 Credit Hours.

Course Attributes: M2

INTM M551. Lung Transplant. 0 Credit Hours.

This clinical elective gives students exposure to the care of Lung Transplant patients. They will be a part of a multidisciplinary team caring for patients preparing for transplant or post-transplant. They will participate in the care of patients in the hospital and in clinic.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M557. Inpatient Pulmonary Medicine. 0 Credit Hours.

This clinical elective will provide training for the evaluation and management of clinical problems in pulmonary disease. Interpretation of CXR's, pulmonary function studies and arterial blood gases will be stressed to sharpen diagnostic skills. Students will participate on the inpatient consults service and attend daily rounds.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M560. Nephrology. 0 Credit Hours.

This clinical elective provides the opportunity for students to be a part of the nephrology team. Students learn the basics of taking a Nephrology history, interpreting lab work and learn to perform a comprehensive evaluation of renal disease and approach to care. They will attend and participate in daily rounds and consultations.

Course Attributes: M2

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M566. Addiction Medicine. 0 Credit Hours.

This clinical elective provides medical students with experience caring for patients with substance use disorders and the principles of harm reduction. Students will be part of the team caring for patients on the inpatient addiction medicine consult service, as well as participate in outpatient treatment clinics. Students will care for patients experiencing opioid withdrawal and uncontrolled pain in the acute care setting, as well as those engaged in outpatient buprenorphine care. Students will have the opportunity to visit a community site providing syringe exchange services. The importance of transitional care will be highlighted, with an emphasis on hospital discharge and warm handoff to community care providers. Particular attention will be paid to the unique socioeconomic challenges experienced by patients with substance use disorders.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.

INTM M570. Rheumatology. 0 Credit Hours.

Course Attributes: M2

INTM M581. Medical Subspecialties. 0 Credit Hours.

A 4-week clinical rotation comprising two 2-week experiences in approved internal medicine subspecialties.

INTM M605. The Pharmaceutical Industry and Its Role in the US Healthcare System. 0 Credit Hours.

In this non-clinical elective, medical students will learn about the pathways of drug development and how the pharmaceutical industry engages with stakeholders to inform development and prepare for the steps required for optimal patient access to therapeutics. The elective will also provide exposure to the range of roles available to physicians within industry as students consider future career paths. Students will have an immersive experience and engage with clinicians in diverse roles across various functional areas in Merck Research Lab.

Repeatability: This course may not be repeated for additional credits.

INTM M850. Medicine Subinternship. 0 Credit Hours.

The required Sub-Internship (Sub-I) core course will provide students with the opportunity to perform the clinical duties of an internal medicine intern with direct supervision. Students will take primary responsibility for assigned patients, will prioritize and complete tasks in a logical and efficient order, and will apply evidence-based medicine (EBM) principles in the diagnosis and management of patient care, all under direct supervision. Students will assist in relevant procedures for their assigned patients under the direct supervision of a resident, fellow, or attending.

Course Attributes: M1

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of P in INTM M301, OBGY M320, PEDI M330, PSYM M340, SURG M350, NEUR M370, and FAMP M360.