

# Internal Medicine (INTM)

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Course information contained within the Bulletin is accurate at the time of publication in August 2023 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 - A Journey through Kidney Disease. 0 Credit Hours.**

We will give students an overview of chronic kidney disease, including epidemiology, detection and management. Students will have the opportunity to participate in the American Society of Nephrology MAPS (Mentoring and Assessment Program) during this elective - a new program developed by this premiere nephrology professional organization 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 will include 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. Students will also have the opportunity to hear about some of the on-going kidney disease research within the Division.

**Repeatability:** This course may be repeated for additional credit.

## **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.**

**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 M391. Principles of Urology. 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 M419. Palliative Care/Hospice. 0 Credit Hours.**

**Course Attributes:** M2

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

**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. HIV Care and Prevention in Populations at Risk. 0 Credit Hours.**

This will be a four week elective, spent on site at Episcopal hospital primarily with a physician, and occasionally a nurse practitioner. There will hopefully be occasional opportunities to visit Graterford Prison in person to see patients if security clearance can be arranged. The student will participate in both clinical sessions with patients in the office (HIV infected, or at risk for HIV) and via telemedicine in the Pennsylvania Department of Corrections (DOC), as our HIV/DOC program care for approximately 650 incarcerated HIV patients at any given time. They will have the opportunity to 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. For those patients who are incarcerated, the students will learn how prison both presents opportunities and barriers to care, and how transitions to freedom may jeopardize that health. Transgender patients are seen both as outpatients and in the DOC. Our program manages their hormonal therapy, as few DOC physicians feel comfortable doing so. The student will be able to witness the degrees of sensitivity given to this population in the prison system, and the health care needs that are often overlooked in transgender people. One of the goals of our outpatient program is to provide culturally competent and friendly care to the LGBTQ community. Our practice is open to all, and we have a number of HIV negative patients as well. Many of our patients do identify as at risk for HIV, and are on tenofovir/emtricitabine (Truvada) for PrEP. This is also routinely discussed with our HIV-infected patients, as well as our prisoners prior to release, if they have partners who might be interested. There will also be opportunity to interact with other members of our multidisciplinary HIV team, including HIV specialty pharmacists, case managers, and care coordinators. We will attend a weekly HIV didactic conference run jointly with the Infectious Disease division.

**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.**

**Course Attributes:** M2

**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 course will focus on the diagnostic and therapeutic procedural elements of Cardiac Electrophysiology. Students rotating in Clinical Cardiac Electrophysiology 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 participate in Cardiac EP academic and clinical rounds, ECG teaching with the Cardiology fellows, and provided reading on arrhythmia mechanisms and treatments.

**Repeatability:** This course may be repeated for additional credit.

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

The Right Heart Failure and Pulmonary Hypertension Elective is a 4th year elective that 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.

**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/Metabolism. 0 Credit Hours.**

**Course Attributes:** M2

**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.****Course Attributes:** M2**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.****Course Attributes:** M2**INTM M520. Infectious Diseases. 0 Credit Hours.****Course Attributes:** M2**INTM M521. Transplant Infectious Diseases. 0 Credit Hours.**

The Transplant Infectious Diseases Elective is a 4th year elective that gives students exposure to both the treatment and prevention of infection in solid organ transplant recipients and candidates. Students will be part of a one fellow/one attending 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. They will participate in the student lecture series of the General Infectious Diseases elective as well.

**Repeatability:** This course may be repeated for additional credit.**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. General Internal Medicine Ambulatory Elective. 0 Credit Hours.**

The General Internal Medicine Ambulatory Elective is a 4th year elective that exposes students to outpatient primary care. Students will work directly alongside faculty members and will 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. 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 be repeated for additional credit.

**INTM M550. Ambulatory Pulmonary Medicine. 0 Credit Hours.**

**Course Attributes:** M2

**INTM M551. Lung Transplant. 0 Credit Hours.**

The Lung Transplant Elective is a 4th year elective that 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 be repeated for additional credit.

**INTM M557. Inpatient Pulmonary Medicine. 0 Credit Hours.**

**Course Attributes:** M2

**INTM M560. Nephrology. 0 Credit Hours.**

**Course Attributes:** M2

**INTM M566. Addiction Medicine. 0 Credit Hours.**

The Addiction Medicine Elective is a 3rd and 4th year elective designed to provide medical students with exposure to the care of patients with opioid use disorder and the principles of harm reduction. Students will be paired with faculty caring for patients on the inpatient addiction medicine consult service, as well as Temple's outpatient medication assisted treatment clinic. Students will gain exposure to patients experiencing opioid withdrawal and uncontrolled pain in the acute care setting, as well those engaged in outpatient buprenorphine maintenance care. 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 drug dependence.

**Class Restrictions:** Must be enrolled in one of the following Classes: Third Year Medical, Fourth Year Medical.

**Repeatability:** This course may be repeated for additional credit.

**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 M850. Medicine Subinternship. 0 Credit Hours.**

**Course Attributes:** M1