Course and Examination Requirements for the MD Degree

PRECLERKSHIP

IN 555 *Introduction to the Profession*
Course Director: Kate Treadway, MD  ktreadway@mgh.harvard.edu
Course Manager: Sally Bartlett  sally@hms.harvard.edu

A week-long course for incoming Harvard Medical students designed to introduce students to the duties and responsibilities of being a physician. Includes discussions of the intellectual, moral, emotional and professional growth that being a physician demands and which begins now as students become physicians in training. Activities include reflection, reading, class discussion and goal setting.

POM 100 *Practice of Medicine (POM)* – Weekly, August Year I – July Year II
Course Directors: Alberto Puig, MD, PhD  apuig@partners.org
Fidencio Saldaña, MD  fsaldana@hms.harvard.edu
Course Manager: Sally Bartlett  sally@hms.harvard.edu
Training in communication skills, physical exam, clinical reasoning, clinical teamwork, diagnosis, and professional reflection designed to prepare students for their clinical clerkships and Principal Clinical Experience (PCE) in October of Year II. POM is designed to be integrated with a concurrent sequence of foundational basic and social sciences courses that together prepare students for entering the clinical clerkships and the Principal Clinical Experience (PCE) in October of Year II. Students entering HMS are assigned to one of our affiliated hospitals (BIDMC, BWH, Cambridge Health Alliance, or MGH). To foster continuity in education and establish meaningful relationships and mentorship, students stay at the same hospital for their second year to complete the PCE.

The POM offers students the opportunity to learn clinical medicine with a multifaceted approach focused on 1) interview & communication skills; 2) physical exam, clinical reasoning and diagnostic skills; 3) ambulatory care and inter-professional education; and 4) professional development and reflection. Guided by core faculty at each clinical site, students participate weekly in morning and afternoon sessions that alternate between inpatient and outpatient settings.

PWY 100 Foundations – August – October, Year I
Course Director: Randy King, MD, PhD, randy_king@hms.harvard.edu
Course Manager: Sean Curran, sean@hms.harvard.edu

Integrates three discipline-specific themes: Molecular, Cellular and Genetic Basis of Medicine (cell biology, biochemistry, genetics, and pharmacology); Structure and Function of the Human Body (anatomy, histology, developmental biology); and Mechanisms of Defense and Disease (pathology, immunology, microbiology). Each discipline introduces disease-specific themes, including Cancer, Infectious Disease, and Atherosclerosis.

PWY 110 Immunity in Defense and Disease (IDD) – November-December, Year I
Course Director: Andy Lichtman, MD, PhD alichtman@partners.org
Course Manager: Caitlin Hoey caitlin@hms.harvard.edu

Dermatology, rheumatology, and immunopathology as they relate to immune/inflammatory disease mechanisms, autoimmune disease, acquired immunodeficiency, allergic disease, skin cancer, sepsis, and arthritis.

PWY 120 Essentials of the Profession: Evidence, Ethics, Policy, and Social Medicine – January, Year I
Course Director: David Jones, MD, PhD dsjones@harvard.edu
Course Manager: Rob McCabe rob@hms.harvard.edu

Social and population science relevant to the practice of medicine: clinical epidemiology, population health, health care policy, social medicine, medical ethics, and professionalism.

PWY 130 Homeostasis I: Maintaining Aerobic Metabolism (Respiratory, Cardiovascular, Hematology) – February-March, Year I
Course Director: Richard Schwartzstein, MD rschwart@bidmc.harvard.edu
Course Manager: Sean Curran sean@hms.harvard.edu

The support of aerobic metabolism via gas exchange, oxygen delivery, and utilization. Major themes, respiratory, cardiovascular, and hematological systems, will integrate anatomy, histology, physiology, pathophysiology, pharmacology, pathology, and radiology. To support a pedagogical approach that
emphasizes inductive reasoning, analytical thinking, and problem-solving, the course content emphasizes a series of questions, the answers to which require students to apply knowledge in a range of clinical contexts.

**PWY 131 Homeostasis II: Food, Water, Mineral Metabolism, Maintenance of Internal Balance (GI; Renal; Endocrine/Reproductive) – April-June, Year I**

Course Director: Melanie Hoenig, MD  
mhoe@bidmc.harvard.edu
Course Manager: Rob McCabe  
rob@hms.harvard.edu

How the body maintains a steady state and how form dictates function in gastroenterology, nephrology, endocrinology, and reproductive endocrinology. These topics will integrate anatomy, histology, physiology, pathophysiology, pharmacology, pathology, and radiology.

**PWY 140 Mind, Brain and Behavior (MBB) – June-July, Year I/II**

Course Director: Bernard Chang, MD  
bchang@bidmc.harvard.edu
Course Manager: Caitlin Hoey  
caitlin@hms.harvard.edu

Integrated course on the nervous system, behavior, and development. Study areas include brain anatomy, psychiatric interviewing, and cognitive and emotional development. Students learn using hands-on dissection of human specimens, close study of anatomical models, and exercises in clinical neurology; they learn the approach to psychiatric interviewing through both didactic sessions and small-group visits to mental health facilities led by clinical preceptors; and they learn about cognitive and emotional development through interactive exercises with pediatric specialists and children. Weekly integration sessions are by lead faculty members from each discipline discuss a clinical case together from a multidisciplinary perspective.

**Transition to the PCE – August-September, Year II**

Course Director: Kathleen Wittels, MD  
kwittels@bwh.harvard.edu
Course Manager: Rob McCabe  
rob@hms.harvard.edu

Consolidates learning during Year I with an emphasis on experiences that further develop skills necessary for success in the clerkships, with a focus on critical thinking, strengthening teamwork, applying medical knowledge to patient care, and understanding how to navigate potentially stressful encounters. Focused individualized learning sessions provide opportunities for students to strengthen knowledge and skills or to pursue advanced study of a topic of interest.

**PRINCIPAL CLINICAL EXPERIENCE (PCE)**

**Beth Israel Deaconess Medical Center**

PCE Director: Katharyn Meredith Atkins, MD  
katkins@bidmc.harvard.edu
PCE Coordinator: Liz Langley  
ealangle@bidmc.harvard.edu

**Brigham and Women's Hospital**

PCE Director: Erik Karl Alexander, MD  
ekalexander@partners.org
PCE Manager: Britt Simonson  
Bsimonson1@partners.org
PCE Coordinator: Preeti Sharma  
psharma7@partners.org

**Cambridge Health Alliance**

PCE Director: David Alan Hirsh, MD  
david_hirsh@hms.harvard.edu
CIC Coordinator: Shawn Merritt spmerritt@challiance.org

Massachusetts General Hospital
PCE Director: Alberto Puig, MD, PhD apuig@partners.org
PCE Coordinator: Lisa Neville lmneville@mgh.harvard.edu

A year-long clinical immersion experience that exposes students to the medical disciplines and experiences essential to becoming a physician. The year consists of 1-month to 3-month clinical rotations in medicine, surgery, pediatrics, obstetrics and gynecology, neurology, psychiatry, and radiology at a single site, supplemented by mentoring and assessment. Students also complete the longitudinal experiences: the multidisciplinary PCE case conferences, the Primary Care Clerkship, and the Developing Physician course.

POST-CLERKSHIP

**Advanced Experiences and Scholarly Project** – October, Year III – April, Year IV

Scholarly Project Faculty Director: Jeffrey Katz, MD jnkatz@partners.org
Scholarly Project Program Manager: Kari Hannibal kari_hannibal@hms.harvard.edu

Visit the [Course Catalog](#) for more information on post-clerkship courses and contact information.

One of the greatest features of the *Pathways* curriculum is the opportunity for students to customize their route through Years III and IV to prepare optimally for whatever aspect of the profession of medicine that has attracted their curiosity and passion. While rigorous demands and high expectations will be set for students in Years III and IV, the expanded time following the PCE allows for considerable flexibility as students pursue advanced integrated science courses, clinical electives, and scholarly research projects, and take advantage of myriad opportunities across Harvard University and around the world.

The scholarly project is designed to provide students with an opportunity to pursue a mentored scholarly experience analyzing a health-related question, issue, or problem in depth. The student can approach the problem through any of a wide range of disciplines in the biomedical sciences, clinical sciences, humanities, arts, or other fields.

Please note that the curriculum is undergoing continuous review and improvement and is subject to change at any time.