

GRADUATION REQUIREMENTS

Curriculum Overview

<http://uwmedicine.washington.edu/Education/MDProgram/Curriculum/>

The undergraduate medical school curriculum at the University of Washington is dynamic and ongoing changes in the curriculum are actively managed by the curriculum committees. The current structure of the basic science curriculum represents a combination of "discipline-oriented" courses and "organ system-based" courses. The curriculum is educationally equivalent at all of the WWAMI first year sites, and common examinations are given to ensure that all students are achieving the same level of competence. Many courses utilize computer-based information, and almost all communication with students outside of the classroom is through our Web pages and email. Thus, there is a requirement for all students to have a laptop computer with wireless capability. Specifications needed to access computer-based instruction are sent to entering students and are available from the Curriculum Office by calling (206) 543-5562.

The "Essential Requirements of Medical Education at the University of Washington School of Medicine: Admission, Retention, and Graduation Standards" is sent to applicants for review. It is expected that students enrolled in the School of Medicine have indicated as part of the completion of their admissions application that they have read, understood, and are able to meet these essentials with or without reasonable accommodation. The "Essential Requirements" document is located in the "School of Medicine Academic Policy Manual" on the MD program website at <http://uwmedicine.washington.edu/Education/MDProgram>.

FIRST YEAR

Anatomy and Embryology	Introduction to Immunology	Musculoskeletal System
Biochemistry	Mechanisms in Cell Physiology	Nervous System
Introduction to Clinical Medicine	Microbiology and Infectious Disease	Systems of Human Behavior
Medical Information for Decision Making	Microscopic Anatomy (Histology)	

The first-year required courses listed above are in alphabetical order. The courses are given at slightly different times across the region since the Seattle site is on the quarter system and the regional sites are on a semester system. Introduction to Clinical Medicine is a year-long course.

In the first year, the student receives instruction in courses taught predominantly from specific departments or disciplines. Biochemistry, Physiology, Histology, Pathology, Immunology, Behavioral Sciences, Microbiology, and Anatomy and Embryology are introduced during this time period. Medical Information for Decision Making and informatics are also introduced.

During the first year, students are also introduced to their first organ system-based courses including the Nervous System, Musculoskeletal, and Immunology System courses.

Throughout this first year and continuing into the second year, the student learns clinical skills including interviewing skills, history taking and recording techniques, and the art of the physical examination. These skills are taught in the Introduction to Clinical Medicine (ICM) series. The University of Washington was one of the first schools to pioneer the small group format that utilizes videotapes of students doing patient interviews and learning from standardized patients. Standardized patients are persons who portray a patient with a particular illness. Those "patients" are trained to give feedback to the students on their interviewing skills. The second-year Introduction to Clinical Medicine course is taught by the College faculty, and includes pertinent lectures, clinical tutorials, and the teaching of clinical skills at the bedside.

First Year Course Descriptions

Anatomy and Embryology

Human anatomy is the result of embryological processes that establish the bilateral symmetry, segmentation, and body cavities that are observed in an adult. The objective of the course is to understand the formation and 3-dimensional relationships of the major structures in the human body. This is a laboratory course and the diversity, variability and adaptability of the human phenotype will be apparent in the dissection laboratory and in living anatomy. Each dissection and living anatomy laboratory involves studying the basic relationship between major structures, their blood supply, innervation and lymphatics. There is strong emphasis on independent learning skills required in the future when students begin to utilize resources that include the internet as well as traditional textbooks, atlases, imaging and knowledgeable colleagues. It is a privilege to work with willed bodies donated by individuals who recognize the importance of human dissection for medical education. Anatomy and embryology use exercises in dissection, living anatomy, modeling and verbal presentation to understand the fundamental structural modifications that transform the embryo into an adult human being.

Biochemistry

Molecular Biology of the Human Genome is taught in this course and focuses on how the genome serves as a source of information, and how molecular understanding of gene function produces new therapeutic and diagnostic tools. The course is divided into five units, which consider (1) how genetic information is stored, mobilized and used; (2) targets of regulation; (3) molecular medicine; (4) cancer; and (5) genomic therapies.

Further, this course focuses on metabolism, as integrated at the level of the intact mammalian organism for the purpose of generating energy from food and converting small molecules to essential building blocks of our cells. Fundamental principles of nutrition and chemotherapy of viral, bacterial and neoplastic diseases are also discussed. This course utilizes a lecture and small group format.

Introduction to Clinical Medicine

ICM I is the first step in a four-year curriculum with exposure to clinical skills and professional issues with instruction in communication skills and interview techniques that form the basis for the doctor-patient relationship and the skills of communicating with patients. The patient's medical database will be introduced. Students will start by obtaining the patient's social history and later in the quarter will add the patient's illness narrative, learning how that narrative is transformed into the history of the present illness. Students work on developing comfort in the physician role.

The basic physical exam of the adult is taught through the use of lectures, audiovisual aids and small group tutorials where students in supervised settings learn and practice the physical exam on one another. Students are introduced to the basic principles of clinical reasoning. Further practice in the performance and written and oral communication of the medical database takes place, as does further exploration of professional issues.

Introduction to Immunology

This course provides students with a medically relevant foundation of knowledge regarding the components and basic principles of the immune system and the vocabulary and language of immunology; a working knowledge of the immunological basis for defense against infection, immune-mediated pathology (including allergy and autoimmunity), immunodeficiency and immunological barriers to transplantation; and familiarity with beneficial therapies to modulate the immune response, including immunization. This course utilizes a lecture and small group format.

Mechanisms in Cell Physiology

The class presents the fundamental cellular events underlying the following topics: physiology of the cell membrane including ionic and electrical potential gradients, active transport, excitability and action potentials; biophysics of sensory receptors; neuromuscular transmission; muscle energetics and contractility; spinal reflexes and central synaptic transmission; autonomic nervous system; energy metabolism and temperature regulation; epithelial transport; gastrointestinal motility and secretions. The class includes both lecture and small group discussion and utilizes web-based laboratory instruction.

Medical Information for Decision Making

This course is an introduction to methods for: a) identifying and retrieving high quality, relevant documents for clinical decision making, b) applying rigorous criteria when reading primary research studies, reviews of primary studies, or other medical information sources that report on the effectiveness of therapeutic or preventive interventions.

Microbiology and Infectious Disease

This course is an introduction to medical microbiology and infectious diseases. Emphasis is on the biology of microbial pathogens and the mechanisms of pathogenesis. Lectures also cover clinical manifestations, epidemiology, and general principles of diagnosis, therapy, and prevention of infectious disease. This course uses wet lab, small group discussion as well as lectures as methods for instruction.

Microscopic Anatomy (Histology)

Lectures and laboratories in microscopic anatomy are designed to provide the principles and concepts of histology, to define the morphological characteristics of the cells, tissues and organs of the human body and to relate this information to functional processes studied in concurrent and subsequent courses. The class includes both lecture and small group discussion and utilizes web-based laboratory instruction.

Musculoskeletal System

Gross, surface, applied and radiographic anatomy of the limbs are the focus of this course. Clinical manifestations in the musculoskeletal system and pathophysiology of trauma, aging, infection, and inflammation as well as congenital and metabolic disorders are taught. Dissections, physical examinations, and problem-based learning are utilized in a small group format.

Nervous System

The course provides an integrated approach to the normal structure and function of the nervous system, including the eye. Neuropathological examples are presented as well as clinical manifestations of neurological disease. The class includes both lecture and small group discussion and utilizes laboratory instruction.

Systems of Human Behavior

This course is a selected overview of contributions from behavioral sciences to the clinical practice of primary care physicians. It sensitizes students to the impacts of such factors as emotional and physical development, cultural backgrounds, social roles, families, sexual identities, and belief systems upon their effectiveness as physicians. Further, it encourages appreciation of the role of behavioral factors in major management problems faced in medical practice; covers physical and psychological development of the individual from the embryo through old age; teaches skills in analyzing behavior, defining behavioral objectives, and designing precise treatment strategies to obtain these objectives. This is a primarily lecture based course.

SECOND YEAR

Brain and Behavior	Hematology	Respiratory System
Cardiovascular System	Introduction to Clinical Medicine	Reproduction
Clinical Epidemiology and Evidence-Based Medicine	Medicine, Health & Society	Skin System
Clinical Nutrition	Molecular and Cellular Basis of Disease (Pathology)	Systemic Pathology
Endocrine System	Principles of Pharmacology I	Urinary System
Gastrointestinal System	Principles of Pharmacology II	
Genetics	Problem-Based Learning	

The second-year courses listed above are in alphabetical order. The second year continues organ system-based teaching and adds two discipline-based courses in Pharmacology. The Introduction to Clinical Medicine (ICM) course is taught by the College faculty, and provides students an opportunity to learn physical examination skills at the bedside at three of the major teaching hospitals in Seattle.

Second Year Course Descriptions

Brain and Behavior

This course covers the major psychiatric disorders, defined and described in a systematic approach to differential diagnoses. Conceptual development, pathogenesis, epidemiology, nomenclature and the terminology use in psychiatry are presented in a lecture format.

Cardiovascular System

An interdisciplinary approach to cardiovascular medicine, including anatomy, physiology, radiology, pathology, medicine and surgery. The central theme of this course is the function of the cardiovascular system in health and disease. It consists of lectures, small group conferences, and demonstrations.

Clinical Epidemiology and Evidence-Based Medicine

The purpose of this course is to learn fundamental concepts of epidemiology and biostatistics and to apply them to the comprehension and interpretation of modern clinical research. This course covers clinical study design and methodology, fundamental sources of error in clinical research, and aspects of statistical theory. These concepts will be applied to the critique of clinical research journal articles. This course is presented in a lecture and journal club format.

Clinical Nutrition

This course will provide students with insights into the principles and practice of clinical nutrition. An appreciation of the role of nutrients in normal growth and development, the pathogenesis of chronic disease, and nutrition in the management of certain disease states will be covered.

Endocrine System

Normal, gross and microscopic anatomy and physiology of the endocrine system are the central focus of this course. Illustrations examining the clinical relevance of homeostasis, feedback and other controlling mechanisms previously learned are applied, especially the endocrine integration of metabolism. Clinically important endocrine pathophysiology is discussed in a lecture and small group format.

Gastrointestinal System

Basic concepts of anatomy, physiology, and pathophysiology in gastroenterology and hepatology are presented in a small group format.

Genetics

The primary aim of this course is to review basic genetic principles in the context of their applications in clinical medicine. Topics include human chromosomal disorders, pathogenesis of hereditary disease, patterns of inheritance, genetic counseling, amniocentesis, monogenic and multifactoral pathogenesis, role of genetics in common diseases, behavioral genetics, drug-gene interactions (pharmacogenetics), and prevention and treatment of genetic diseases including prenatal diagnosis and population screening.

Hematology

This course familiarizes students with the basic mechanisms leading to disturbances of red cell, white cell and platelet production, physiology, and destructive and malignant processes. The course covers abnormalities of hemostasis as well as transfusion therapy. An understanding of pathophysiology is stressed. Problem-based learning sessions in small groups and interactive computerized clinical problems are a significant portion of this course. The class includes both lecture and small group discussion and utilizes web-based laboratory instruction.

Introduction to Clinical Medicine

ICM II is a continuation of the integrated curriculum of clinical skills and professionalism. It includes advanced instruction in communication skills, interviewing techniques, advanced physical examination, medical database documentation, oral case presentations, and clinical reasoning. All of these are correlated with the basic science and pathophysiology taught in the organ system courses of the second year curriculum. In addition, we continue a consideration of issues in professionalism and medical ethics, building on the skills from the first year and preparing students for clinical training.

Medicine, Health and Society

The course addresses interrelationships between provision of medical care and nonbiological factors which influence health. Issues include relative importance of society, environment and individual choice in determining health status; impact of organizational, economic, and political influences on medical practice and choice; measurement of costs, risks, benefits and efficacy of diagnostic and therapeutic technologies; importance of these concepts in responsible and scientific decision making.

Molecular and Cellular Basis of Disease (Pathology)

The course introduces students to the patterns of cell and tissue response to injury including: mechanisms of cell injury, the inflammatory process, immunology, immunopathology, thrombosis, normal and abnormal growth, neoplasia, and clinicopathological correlation. The class includes both lecture and small group discussion and utilizes web-based laboratory instruction.

Principles of Pharmacology I

This course covers the general principles of drug action, selective toxicity as applied to antimicrobial and anticancer chemotherapy, and consideration of prototype drugs with major effects on the autonomic nervous, cardiovascular, and respiratory systems. Emphasis is on sites and mechanisms of action and how these fundamental features are associated with indications, contraindications, and major adverse reactions of the prototype drugs that are considered.

Principles of Pharmacology II

This course focuses on drugs acting on the central nervous system. Lectures emphasize the physiological and biochemical mechanisms with consideration of their therapeutic and adverse effects.

Problem-Based Learning

PBL teaches students to methodically solve medical problems by gathering, sorting, critically evaluating, and interpreting data. Students learn life-long self-education and self-evaluation skills. PBL also provides practice working as a health care team by including medical and physician assistant students in each small group.

Respiratory System

The course presents an interdisciplinary approach to the respiratory system, including anatomy of thorax and lungs, ventilation mechanics, blood gas transport, gas exchange, acid-base balance and the physiology and pathology of obstructive, restrictive and pulmonary-vascular diseases in both lecture and small group venues.

Reproduction

Reproduction comprises 36 hours of lectures and case presentations concerning topics related to reproductive biology and medicine. The course covers topics including gametogenesis, egg transport, fertilization, implantation, placentation, the physiology and pathophysiology of sexual differentiation, normal and abnormal

puberty, the physiology of menstrual cycle function and male reproductive endocrinology, infertility, aging of the male reproductive system, menopause, contraception and family planning, abortion, population dynamics, ethical dilemmas in reproductive medicine, gynecological pathology, pregnancy, labor and delivery, prolactin and oxytocin physiology, and lactation.

Skin System

Although at first glance a simple organ, the skin in greater depth is remarkably complex. This course introduces the structure, function, and dysfunction of our largest, but thinnest, organ. Topics covered include: microscopic and molecular structure of the epidermis, dermis and basement membrane zone; pigmentation, the anatomy and physiology of hair, cutaneous immunology, wound healing, burns, photobiology, and skin cancer. Students also will be introduced to clinical dermatology with topics including the language of dermatology and the physical examination of the skin, and with numerous and illustrative examples of skin diseases. This course consists of lectures, small groups and participation in a dermatology clinic.

Systemic Pathology

The course presents a multidisciplinary approach to some diseases which affect more than one organ system (nervous, cardiovascular, respiratory, etc.) and which are caused by different mechanisms (congenital, inflammatory, vascular, traumatic, metabolic, and neoplastic). This course is taught in lecture and small group settings and utilizes web-based laboratory instruction.

Urinary System

The course includes the anatomy, physiology and pathology of the kidney, ureter, bladder and prostate; pathophysiology and treatment of common fluid and electrolyte problems; renal pharmacology; major clinical urinary system syndromes with current diagnostic approaches and therapy. This course is taught in lecture and small group settings.

THIRD AND FOURTH YEARS

The third year primarily consists of the required clinical clerkships. The required third year clerkships are in Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Surgery. Rehabilitation Medicine/Chronic Care, Emergency Medicine, Neurology and an additional four-weeks of Surgery or a surgical subspecialty are also required and may be taken in the third or fourth year. Because of the regional nature of the School and the value of seeing health care delivered in different settings, it is expected that ALL students will take at least two to three clerkships outside the Seattle area. There is some time allocated to electives in the third year, however, most of the clinical electives are taken in the fourth year. During the fourth year, students typically schedule a program that permits advanced coursework in areas of specialty interest and that provides a broad general medical education in preparation for assuming patient care responsibility during residency training.

Required Third Year Clinical Clerkships

FAMILY MEDICINE: (6 weeks) <http://www.fammed.washington.edu/predoctoral/clerkship/>

This clerkship stresses ambulatory primary care with emphasis on common problems, biopsychosocial issues, preventive care, and introduction to the role of the primary care physician. The student functions as a clerk in a community or residency site and participates in the care of patients using office, hospital, home, or community resources. Sites include: Anacortes, Anchorage, Boise, Billings, Bremerton, Buffalo, Country Doctor, Group Health Residency, Havre, Madigan, Missoula, Olympia, Omak, Petersburg, Pocatello, Powell, Renton Valley, Sea Mar, Spokane Residency, Spokane Valley, Swedish First Hill, Swedish Cherry Hill, Tacoma, UWMC, Valley Residency, Renton Valley Medical Center, Whitefish, Tacoma, Torrington, and Yakima. Not all sites are available during each 6-week clerkship timeframe.

MEDICINE: (12 weeks) <http://courses.washington.edu/med665/>

This basic clerkship serves as a prerequisite for most other medicine courses and clerkships. Currently this clerkship is divided into 8 weeks of inpatient and 4 weeks of outpatient experience at the Seattle and Spokane sites, and 6 weeks of inpatient and 6 weeks of outpatient experience at other WWAMI sites. Students participate in the care of hospitalized patients to refine their skills of history-taking and physical examinations and to learn to care for the acutely ill. Daily rounds and conferences are held. A written and computer-based patient management examination for this course is given on the last day of the clerkship. Sites include UWMC, Harborview, UWPN Clinics, Virginia Mason, Seattle and Boise VAMC, Madigan AMC, Billings, Douglas, Missoula, Montesano, Spokane, Wenatchee, Anchorage, Jackson, Sheridan and Soldotna.

OBSTETRICS AND GYNECOLOGY: (6 weeks) <http://depts.washington.edu/obgyn/clerkship>

This clerkship experience provides an introduction to the comprehensive medical care and counseling services for adult and adolescent female patients. Students are actively involved in both inpatient and outpatient settings with management and delivery of obstetric patients as well as diagnosis and management of gynecologic conditions and diseases. Students participate in hospital rounds on both obstetric and gynecologic patients, in outpatient clinics, in seminars, tutorials, and are introduced to community health care agencies for women. Sites include Anchorage, Fairbanks, Boise, Caldwell, Sandpoint, Billings, Bozeman, Havre, Missoula, Group Health, Madigan, Swedish, Spokane, Tacoma, UWMC, Harborview, Yakima, Cheyenne, and Rock Springs.

PEDIATRICS: (6 weeks) <http://depts.washington.edu/peds/students/>

This clerkship provides a general introduction to inpatient and outpatient pediatrics. The aim is to expose students to settings where children receive medical and health care services. Approximately half of the six-week experience takes place in an inpatient hospital setting with the other half in an outpatient department, a clinic, or a series of offices. Sites include CHRMC, UWMC, Madigan Army Medical Center, Mary Bridge, Pocatello, Great Falls, Boise, Missoula, Billings, Spokane, and Anchorage.

PSYCHIATRY AND BEHAVIORAL SCIENCES: (6 weeks) <http://depts.washington.edu/psyclerk/>

This clerkship provides both outpatient and inpatient experiences. Students have primary responsibility under supervision of attending psychiatrists and residents for diagnosis and care of patients at UWMC, HMC, VAMC, or Boise VA. Emergency room, crisis intervention, consultation appropriate to patients with psychiatric dysfunction; familiarity with psychopharmacology, and short-term hospitalization are emphasized. Sites include: Seattle, Anchorage, Billings, Missoula, Boise, and Spokane.

SURGERY: (6 weeks) <http://depts.washington.edu/surgstus/>

This clerkship introduces the student to the diagnosis and management of problems amenable to surgical therapy. A comprehensive program is offered which includes instruction in the physiological basis of surgical care, differential diagnosis and decision making, and the basic principles of surgical management. Active participation in the care of inpatients and outpatients, including participation in the operating rooms, provides practical experience in the application of these skills. Students will be assigned to the surgical service of one of the major affiliated hospitals. Approximately 40 hours per week is devoted to working with assigned patients on the ward or in outpatient clinics, in the operating room or in study. A series of lectures (required attendance) and/or discussions expand on major topics related to general, vascular, cardiothoracic, and plastic surgery. Each student is required to submit four (4) complete history and physical examinations with a discussion of the patient's problem as well as complete a critique of a current article in the surgical literature. A written exam is given during the last week of the clerkship. Sites include VAMC, UWMC, Harborview, Virginia Mason and Providence in Seattle, Spokane, the Boise VA, Casper, Billings Missoula, Madigan, and Fairbanks

Required Clerkships – Usually taken in Fourth Year

EMERGENCY MEDICINE: (4 weeks) <http://depts.washington.edu/emed/wordpress/>

This required emergency medicine rotation can be taken at one of three sites: Harborview Medical Center, Boise, and UWMC. Harborview Medical Center has primary emphasis on the management of trauma and critical medical emergencies. At the completion of this rotation students will be certified in ACLS. At UWMC, the student will gain exposure to the wide variety of medical, surgical, and gynecologic emergencies that present to a tertiary care, academic emergency department. Development of the knowledge and skills necessary to evaluate and manage multiple patients simultaneously will be emphasized.

NEUROLOGY (4 weeks) <http://depts.washington.edu/neurolog/>

Students in this clerkship gain a general understanding of basic clinical neurology and to develop neurology exam skills. A combination of inpatient and outpatient experience is the general rule. Sites are available in Seattle, surrounding region, Spokane and eastern Washington, Idaho, Alaska, and Montana. Available in the 3rd and 4th years; prerequisite for 3rd year students are: medicine, family medicine, surgery, **or** pediatrics.

REHABILITATION MEDICINE/CHRONIC CARE: (4 weeks) <http://depts.washington.edu/conj690/index.html>

Students in this clerkship are to expose students to three content areas: Rehabilitation Medicine, Geriatrics, and Palliative care. Students will choose one of these specialty areas and are assigned to a preceptor and site to concentrate their clinical activities. This clerkship focuses on integrative learning experiences and involves didactic sessions designed around a series of content themes including the management of individuals with chronic disease and resultant impairments, disabilities, and prognoses.

Didactic sessions emphasizes exposure to all three content areas and will include a variety of learning experiences including: lectures, small group discussions, standardized patients, and case presentations. Sites include the University of Washington affiliated hospitals, other local affiliated services, Spokane, and Boise.

SURGERY SELECTIVES (4 weeks)

These additional four weeks of surgery are designed to allow students to learn more about general surgery or surgical subspecialties in a variety of inpatient and/or ambulatory care settings. Students may select a single 4-week rotation or two 2-week blocks available throughout the WWAMI region, from the approved list of surgery selectives.

CLINICAL ELECTIVE CLERKSHIP GENERAL POLICIES

1. All clerkships are approved by the department, School of Medicine curriculum committees and by the UW Curriculum office for a maximum number of allowable credits.
EXAMPLE: **MED 682 P-Clinical Cardiology and Electrocardiography (8)** is approved as a 4-week, full-time elective for 8 credits. The maximum number of credits a student can earn for this clerkship is 8. Similarly, the clerkship cannot be taken for credit for less than four weeks.
2. Some clerkships have been approved for variable credit and may be repeated.
EXAMPLE: **MED 699, P-WWAMI Medicine Special Electives (*, max 24)** is approved to be taken for 2, 4, or 6 weeks full-time for up to 12 weeks or 24 credits. So a student could take MED 699 as a 4-week full-time elective in Cardiology and then MED 699, as a 4 week, full-time elective in Respiratory.
3. Students are allowed to take a maximum of three 4-week, full-time clerkships in a given specialty, and these credits will be counted toward the minimum number of clinical elective credit required for graduation.
EXAMPLE: A student could take:

ORTHP 677 P-Musculoskeletal Trauma Clerkship (*, max 8) for 4 wks.	=	8
ORTHP 680 P-General Orthopaedic Clerkship (*, max 8) for 4 wks.	=	8
ORTHP 697 P-Orthopaedic External Elective (*, max 12) for 4 wks.	=	<u>8</u>
Total Credits:		24

For other policies regarding clerkships, please visit the following website:

<http://www.uwmedicine.washington.edu/Education/MDProgram/StudentAffairsAndServices/Registration>

Other Requirements

In addition to the required clerkships listed above, students entering in 2001 or later must also complete:

- Continuity curriculum and required preceptorship.
- 4 non-clinical selective credits, required to be taken in first two years. (See list of approved selectives.)
- 32 elective credits (16 weeks) at the 600-level; exceptions need to be approved prospectively.
- An independent study in medical sciences, Independent Investigative Inquiry (III), for which 8 credits will be granted upon completion and acceptance of the required paper. (See section describing III.)
- OSCE (Objective Structured Clinical Examination) at the end of the second year and the beginning of the fourth year. (See below for description.)
- USMLE Step 1 and Step 2-Clinical Knowledge and Step 2-Clinical Skills. (See section describing USMLE.)
- Capstone Courses are held at the end of the second and fourth years. Capstone I is Transition to Clerkships; Capstone II is Transition to Residency. All students, including those in concurrent degree program or year-out research projects, are required to complete the Transition to Clerkships course at the end of the second year (or completion of HuBio curriculum for expanded student) regardless of whether the students will be entering the clinical curriculum that year. MSTP students or students taking a year out are encouraged to audit the relevant portion of the course as needed after the completion of their graduate or year-out work prior to entering the clinical curriculum.

Each student is required to successfully complete the Objective Structured Clinical Examinations (OSCE). The second year OSCE is given during the Winter/Spring Quarter of the second year, and the senior OSCE is given in specific weeks at the end of third year or beginning of the fourth year. All students are required to take the senior OSCE at that time even if expanding the fourth year. Students need to be certain to reserve time to be available for the senior OSCE, which is scheduled during the fourth-year elective scheduling appointment. The OSCE's are intended to provide opportunities to assess whether the appropriate level of clinical skills have been learned. Time for remediating any areas in which the student needs additional assistance will be scheduled with

the College mentor prior to the student continuing in the curriculum. If the remediation is not successfully completed, the student's record and a decision about his/her continuance in the medical school will be referred to the Student Progress Committee. Completion of the OSCE's is noted in the Dean's MSPE.

Students must also pass Step 1 and both components of Step 2, Clinical Knowledge (CK) and Clinical Skills (CS) of the United States Medical Licensing Examination (USMLE) prior to graduation. These examinations became computerized in 1999, and are offered most weeks year round. However, in relation to a student's progress in the curriculum, Step 1 must be taken following completion of the basic science curriculum in the June-August timeframe and prior to entering the clinical curriculum. Step 2-CK and Step 2-CS must be taken following completion of the required clerkships in the July-September timeframe of the fourth year. Students need to reserve time to take these exams as a priority in relation to other scheduled coursework and personal time. To delay either Step 1 or either component of Step 2 while continuing in the curriculum, the student must receive permission prospectively from the Associate Dean for Student Affairs, Dr. Eveland.

State-Based Tracks, WRITE, and Pathways

Over the past several years, the School of Medicine has developed programs in conjunction with the states participating in the WWAMI program. The state specific third-year tracks permit a student to complete the majority of the required third year clerkships in that state. Currently, tracks exist in Idaho, Eastern Washington, Montana, and Alaska.

The WRITE program (WWAMI Rural Integrated Training Experience) provides a five-month opportunity to work with physicians in a rural area during the third year.

Each clinical center has a faculty member and staff who oversee the track, assist students with academic or personal issues, and organize programs and visits by Seattle-based deans, faculty, and staff.

The School has also developed pathways that provide students an opportunity to take selected coursework with an emphasis on the health care needs of specific populations.

- The **Native American Pathway** includes coursework on issues affecting this culture and clerkships in tribal setting. For more information contact Multicultural Affairs. <http://faculty.washington.edu/dacosta/nacoe/ihp.html>
- The **Hispanic Health Pathway** (est. 2008) provides medical students a unique educational opportunity in the area of Hispanic health. The Hispanic community is one of the largest growing population groups in the nation. This pathway is designed for students who are interested in experience or becoming practitioners in urban or rural communities with a high Hispanic population. For more information contact Multicultural Affairs. <http://faculty.washington.edu/dacosta/HHP/index.html>
- The **Global Health Pathway** provides medical students with the information and experiences necessary to practice in underserved communities both here and abroad. For more information, see their website at <http://depts.washington.edu/deptgh/ghrc>.
- The **Underserved Pathway** provides academic and clinical resources to prepare students to care for a variety of underserved populations including rural urban and international communities. For more information, see their website at <http://courses.washington.edu/upathway/>.

GRADUATION REQUIREMENTS

Curricular Requirements for the 2006 Entering Class and Subsequent Classes

The curriculum is designed to give students a broad and strong foundation in the basic and clinical sciences. As the field of medical science is constantly changing, the graduation requirements for the M.D. program set forth at matriculation may undergo modification that will apply to students already enrolled. The requirements include satisfactory completion of such comprehensive examinations as may be adopted by the Medical School Executive Committee. Currently, the United States Medical Licensing Examination Steps 1 and Step 2, clinical knowledge and clinical skills (formerly, National Boards Parts I and II), serve this function.

A.	<u>Basic Sciences Curriculum</u> (Generally defined as 500-level courses)		148 credits
	1. Required Human Biology (Basic Science) first and second year courses		
	2. Required Preceptorship		
B.	<u>Clinical Curriculum</u> (Generally defined as 600-level courses)		148 credits
	1. Required clinical clerkships in the third year:		
	Family Medicine	(6 weeks)	12 credits
	Internal Medicine	(12 weeks)	24 credits
	Obstetrics/Gynecology	(6 weeks)	12 credits
	Pediatrics	(6 weeks)	12 credits
	Psychiatry	(6 weeks)	12 credits
	Surgery	(6 weeks)	12 credits
	2. Required clinical selectives in third or fourth year:		
	Emergency Medicine	(4 weeks)	8 credits
	Rehabilitation Medicine/Chronic Care	(4 weeks)	8 credits
	Neurology	(4 weeks)	8 credits
	Surgery	(4 weeks)	8 credits
	3. Other clinical electives:	(16 weeks)	32 credits
C.	<u>Independent Investigative Inquiry</u> (See description below for additional details.)		8 credits
D.	<u>Non-clinical selectives</u> (Selected 500-level medical school courses in a variety of subjects)		4 credits
E.	<u>Capstone I: Transition to the Clerkships</u>		2 credits
	<u>Capstone II: Transition to Residency</u>		2 credits
	Total minimum credits for M.D. degree:		312 credits

Approved, June 2006

Reviewed/Approved, May 2008

NON-CLINICAL SELECTIVES APPROVED FOR GRADUATION CREDIT

While students are in the basic science curriculum, it is anticipated that they will pursue electives throughout the University that will enhance their personal medical education. Special electives relevant to medical education, but not involving direct patient care, have been approved by the School of Medicine as non-clinical selectives, which fulfill the graduation requirement. See website for listing of approved non-clinical selectives for Seattle and regional first-year sites.

Requirements:

- Students are required to take a minimum of 4 non-clinical selective credits in order to satisfy the School of Medicine graduation requirements.
- Students must complete all non-clinical selective requirements prior to entering the clinical curriculum.
- Non-clinical selectives must be taken following matriculation into medical school
- Student must register through MyUW and pay tuition for these electives
- Only pre-approved electives count toward the non-clinical selective requirement
- Courses taken as part of a Doctoral or Master's program for concurrent degree student will meet the non-clinical selective credit requirement.

Seattle Based Approved Non-Clinical Selectives:

<http://uwmedicine.washington.edu/Education/MDProgram/Curriculum/Non-Clinical+Selectives.htm>

For registration information please use the UW Time schedule URL:

<http://www.washington.edu/students/timeschd/>

For more information contact Sandy Pomerinke in the Curriculum office: spomerin@u.washington.edu

Regional WWAMI-Based Approved Non-Clinical Selectives

Contact your WWAMI office for registration and more information.

The Associate Dean for Curriculum may grant exceptions for students wishing to take courses not on the approved course list. Please make an appointment with Associate Dean for Curriculum to discuss a request for exception. Exceptions need to be approved prior to taking the elective.

Exceptions may be granted utilizing the following criteria:

1. A written request, with documentation of course content, is required 4 weeks prior to registration, to the Curriculum Office
2. Pre-approval in writing is granted by the Associate Dean for Curriculum.
3. Courses must be at the graduate level (course number is 500 or above) and relevant to medicine.
4. Courses must be intellectually rigorous and without patient care responsibilities.
5. Courses must be offered at the University of Washington or affiliated (i.e., WWAMI) site.
6. Student must be enrolled and paying tuition in order for course credit to be granted.
7. Independent study courses may not be taken for non-clinical selective credit.
8. CME courses and Independent Study may not be taken for non-clinical selective credit.

Approved 06/04; Revised 07/05; Revised 06/06; Revised 06/07; Revised 05/08

Continuity Curriculum

http://courses.washington.edu/colleges/colleges_continuity.shtml

During your training as medical students at the University of Washington, you will learn much about diseases, diagnoses and treatments. However, all of this knowledge is irrelevant without understanding how illness and health affect your patients. The fundamental goal of the continuity experience outlined below is to enhance your foundation for understanding how patients are affected by disease. We hope that by following patients over time, building relationships with them and talking to their doctors, you will better apply your newfound knowledge to heal others with compassion and caring. Additionally, the continuity curriculum is designed to help you understand the many ways continuity of care in medicine benefits patients, physicians and society.

The continuity curriculum is envisioned to be a longitudinal theme in your medical school training. The content of the curriculum is designed to mirror your experiences as you move from year to year in medical school.

Year 1: During a preclinical preceptorship you will have the opportunity to follow a patient over time. This will allow you to understand how illnesses change over time, explore what patients think about seeing the same doctor for medical care and how various states of health and disease affect patients' lives. You will also have an opportunity to interview a patient with a chronic illness to explore similar themes. Finally, after working with your preceptor, you will discuss what continuity of care means to physicians. Reflection about what you learned from both the patient and physician should enhance your understanding of the importance of continuity of care in medical practice. You will share these writings (reflections) with both your ICMI and college faculty. These reflections will become part of your portfolio.

Year 2: During your ICM II class, you will explore various aspects of continuity of care with each of the patients you interview. It is likely that you also will learn what happens when continuity of care is not available, and how this situation affects patients' lives and health. You also will discuss clinical studies that examine the effects of continuity of care on medical outcomes and patient satisfaction with your college faculty.

Years 3 & 4: During your clerkships you will explore YOUR role in providing continuity of care. In reality, students often spend more time with patients than anyone else on the patient care team. Each specific continuity experience will be unique to the individual clerkship because each specialty insures that patients receive continuous care in different ways. You will share your reflections about these experiences with your college faculty and these reflections will also become part of your portfolio.

We think that this will be fun, inject more patient centered experiences in the preclinical years and help you realize what an important role you play in patient care as you move to the clinics in your third and fourth years.

Preceptorships

Students are required to complete a preceptorship during the first year of the basic science curriculum. Although the preceptorship and Continuity Curriculum requirements are separate, students should strongly consider completing a preceptorship in a primary care field as there will be greater opportunity to fulfill the Continuity Curriculum during such an experience. Students need to complete a minimum of 8 sessions with a preceptor. Enrollment in a preceptorship is distributed throughout Autumn, Winter, and Spring Quarters. Students should set up a preceptorship by contacting their department of interest in advance (by the end of the previous quarter) with the exception of the first-year Autumn Quarter which may be set up the first week of Autumn Quarter. While the required preceptorship is tracked as part of the ICM I evaluation, students must register for it as a separate course through MYUW. Each department has a staff person who can help students connect with a preceptor in that field and provide a faculty code for registration.

Expectations: Minimum 8 weeks (one morning, 4 hours/week)

Preceptor guides are available through the ICM Office that outline student/preceptor expectations.

More information and departmental contacts can be found at this website:

<http://uwmedicine.washington.edu/Education/MDProgram/Curriculum/Preceptorships.htm>

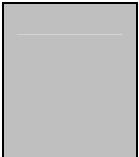
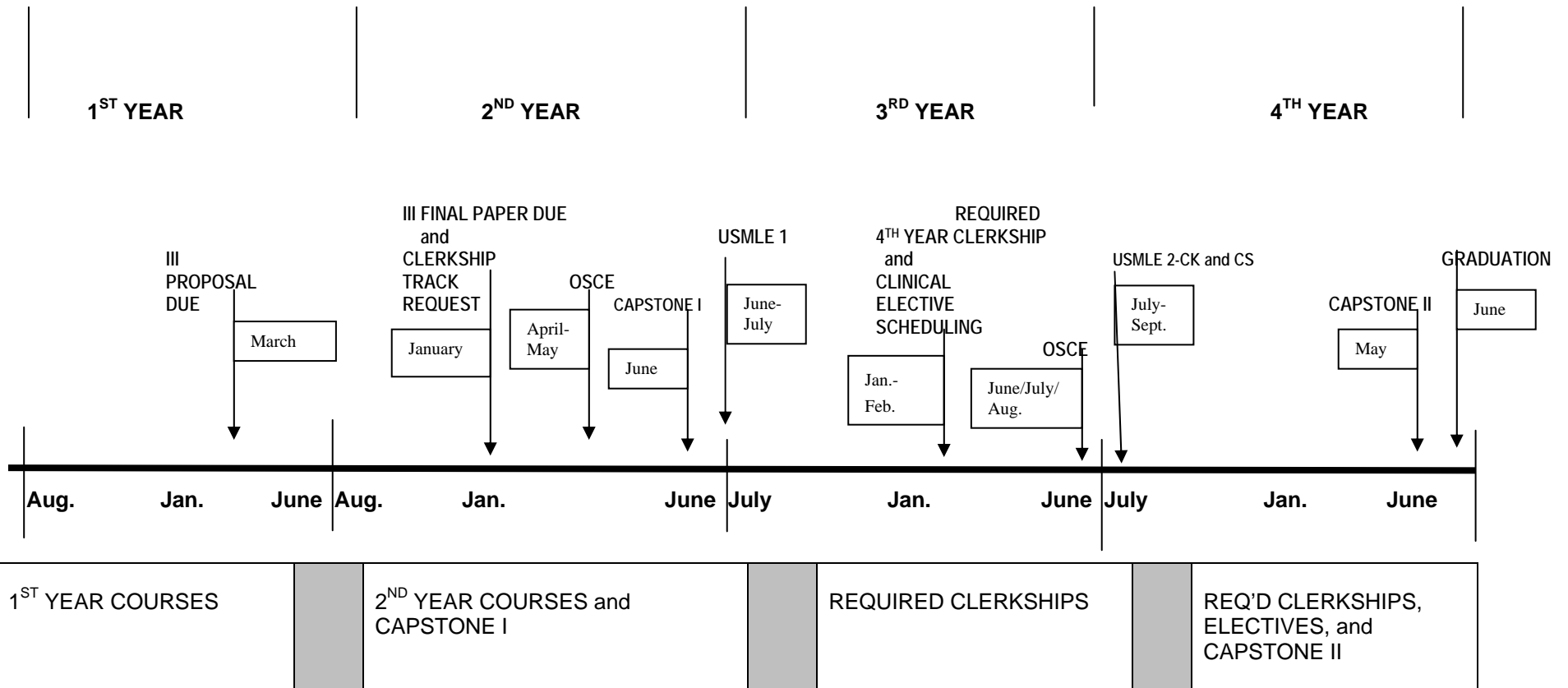
Students are encouraged to take additional preceptorships during their first and second years in primary care or specialty fields. Preceptorships should be done during the SOM Seattle-based academic quarter and WWAMI site semester in which the student is enrolled. Students must have registered prior to starting their preceptorship.

Preceptorships are available in: Anesthesiology, Family Medicine, Emergency Medicine, Internal Medicine, Neurological Surgery, Neurology, Ophthalmology, Orthopaedics, Otolaryngology, Pediatrics, Psychiatry and Behavioral Sciences, Rehabilitation Medicine, Surgery, Urology, and the Pain Clinic.

For general preceptorship information contact:

Angie Wick, Curriculum Office, angwick@u.washington.edu, (206) 616-8637

Curriculum Timeline



- NOTE:**
1. Complete four required non-clinical selectives during first two years.
 2. Consider using summer quarter of your 4th year to do clinical electives in your area of interest.
 3. You will want to schedule time off for residency interviewing and re-locating during your 4th year.

Independent Investigative Inquiry (III)

The objectives of this requirement should lead the student:

- A. To have first-hand experience in the acquisition and synthesis of new knowledge
- B. To understand a health-related issue in depth
- C. To foster a mentoring relationship with a faculty member outside the usual course structure
- D. To summarize the experience or findings in a written document

The purpose of the III portion of the curriculum is to engage students in activities that will foster the skills of life-long learning essential for practicing physicians in the 21st century. Students will gain experience generating questions related to the practice of medicine and exploring the various methods available to resolve such questions. The student is strongly urged to select a topic of particular interest to him/her and to investigate the subject independently, utilizing the advice of a faculty advisor and other resources in the WWAMI community. This is a unique opportunity for students to choose both the content and form of their learning and to pursue an interest that may not be included elsewhere in the curriculum.

There are four selectives by which the III requirement can be fulfilled. Each offers the student a different type of learning experience and each has its own expectations, procedures and deadlines. These are described briefly here.

Selective 1: Data Gathering/Hypothesis-driven Inquiry

This selective can take the form of a basic laboratory study, a health services or medical education survey, secondary analysis of an existing dataset, a chart review, a qualitative study or a prospective clinical trial. The research can be initiated by the student or by the advising faculty member, as long as the student has an independent role and makes an intellectual contribution to the project. If a student undertakes research as part of a funded program such as MSRTP (Medical Student Research Training Program), Roadmap TL-1 (multi disciplinary Predoctoral Clinical Research Training Program), or UW/American Cancer Society Summer Fellowships in Clinical Cancer Research, the study may also be used to fulfill the III requirement.

Students selecting this option can expect to learn the steps and logic involved in trying to resolve an empirical question through data collection and analysis. If applicable, students will learn how to conduct research in a way that conforms with human and/or animal use regulations.

Selective 2: Critical Review of the Literature

In most cases a critical review of the literature involves developing a hypothesis and using published material to explore the issue in depth. Particular attention is paid to the methods of the studies reviewed in addition to the results. Alternatively, students can use published literature and other sources to analyze an issue in medicine or to perform a historical medical investigation.

Students selecting this option will learn how to use medical databases effectively. They will learn how the population and methods employed in a study affect the interpretation of study results. In addition, they will learn how to synthesize information from a variety of sources in the form of an evidence table to draw a reasonable conclusion.

Selective 3: Experience-driven inquiry

An experience-driven investigation of an issue will be developed by the student while participating in one of these programs, R/UOP-III (Rural/Underserved Opportunity Program), IHOP (International Health Opportunity Program), or CHAP (Community Health Advancement Program). Students will closely observe health care in a community setting and then develop a project based on those observations. The project could take several forms, including a community needs assessment, a plan for a community health intervention, or evaluation of a service delivery project.

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Selective 4: Special Simulation Selective (currently in pilot phase)

This selective offers students an opportunity to participate as a member of the ISIS staff (Institute for Surgical and Interventional Simulation). Under the direction of experts in the field of simulation, students will have the opportunity to participate in task and team orientation simulation exercises. With the understanding of how simulation exercises are conducted, the student will then be expected to research and develop the content for one or more simulated patients. This patient, as well as others being concurrently developed will be incorporated into a computer based (Xbox) 'simulated hospital' which is currently under development by the ISIS faculty. These patients will serve as the core of a computer based 'continuity of care' experience being developed for use with medical students.

Waiver: Students who have received Master's or Ph.D. degrees with thesis or dissertation in disciplines basic to medicine, or those who are first authors of published papers in peer-reviewed medical or scientific journals may petition for a waiver of the requirement. Petitions for waivers must be submitted no later than April 15 of the first year of medical school. Papers used to fulfill requirements in other courses/schools, other than those described above, are **NOT** acceptable for waivers. Papers must be published by April 15 of the first year of medical school.

Faculty advisor: Students will work with a faculty advisor who is on the UW faculty or is faculty affiliated with the WWAMI Program. The minimum responsibilities of the advisor are to read and evaluate the plan for the investigation and to approve the final scholarly product.

Final product: For Selectives 1 and 2, the student must write a paper related to the investigation. Specific paper guidelines and evaluation criteria differ for each selective and will be described elsewhere. Inasmuch as the writing of the paper is an essential component of the Independent Investigative Inquiry requirement, the student must be the sole author of the paper, even if the student has collaborated with another student or faculty member, or plans to submit a paper for publication under joint authorship. For Selectives 3 and 4, a specified scholarly product is expected. Papers used to fulfill requirements for other degrees or courses are not acceptable.

III Timetable for E-2008 Students

	Selective 1	Selective 2	Selective 3	Selective 4
Year 1 2008-2009 Proposals Due	MSRTP - Proposal due the last Friday of January 2009 ALL OTHER SELECTIVE 1 options- proposal due last Friday of March 2009**	Proposal due last Friday of March 2009	R/UOP III-3 application will be available online by the last Friday of the Autumn Quarter Application deadline is the last Friday in January 2009	Application due the last Friday in January 2009
Year 2 2009-2010 Final Project Due	Final paper due January 2010	Final paper due January 2010	Final R/UOP III-3 project is complete once final poster is presented in Autumn 09*	Final project due January 2010

***III-3 project has several assignment components due during the summer program experience; all III-3 students must display their posters in Student Poster Session Autumn Quarter 2009.**

****TL1 and UW/ACS have application deadlines that differ from these dates. It is your responsibility to check deadlines for those programs. If you are accepted into one of these programs, you must also submit a Selective 1 proposal by the March deadline.**

Any questions regarding III may be directed to Marcie Buckner, Manager of Basic Science Curriculum, (206) 543-0922 or mbuckner@u.washington.edu.

Advice for Writing Papers/Plagiarism

In conducting any research project, one must follow guidelines for acknowledging the use of the work of others. There are a number of manuals on how to write research papers, and it is highly recommended that students identify the appropriate manual for the kind of project being completed. One particular area, that of plagiarism, deserves special attention because the definition of plagiarism is broad. There are ramifications for the manner in which one summarizes the work of others and how the ideas of others are documented with appropriate reference notes.

For your reference in completing the required research project, below is part of a "Definition of Plagiarism" by Harold C. Martin, Richard M. Ohmann, and James H. Wheatly, as published in Wesleyan University's Blue Book. We have used this definition in assessing whether plagiarism has occurred in work done by students, whether for III, MSRTP, or course-related papers.

Plagiarism can take many forms:

The spectrum is a wide one. At one end, there is a word-for-word copying of another's writing without enclosing the copied passage in quotation marks and identifying it in a footnote, both of which are necessary. It hardly seems possible that anyone of college age or more could do that without clear intent to deceive. At the other end, there is the almost casual slipping in of a particularly apt term, which one has come across in reading and which so admirably expresses one's opinion that one is tempted to make it personal property. Between these poles, there are degrees and degrees, but they may be roughly placed in two groups. Close to outright and blatant deceit - but more the result, perhaps, of laziness than of bad intent - is the patching together of random jottings made in the course of reading, generally without careful identification of their source, and then woven into the text, so that the result is a mosaic of other people's ideas and words, the writer's sole contribution being the cement to hold the pieces together. Indicative of more effort and, for that reason, somewhat closer to honesty, though still dishonest, is the paraphrase, an abbreviated (and often skillfully prepared) restatement of someone else's analysis or conclusions without acknowledgment that another person's text has been the basis for the recapitulation. (From reproduction in "Honor in Science", published by Sigma XI, The Scientific Research Society, p. 15.)

It is highly recommended that one understand the guidelines for writing papers and giving proper attribution before beginning a project. This will enable one to set up a system for documenting the source of information as notes are made in developing the framework from which the paper will be written.

Papers for Course/Clerkship Honors:

For courses that require a paper for Honors, each paper must be unique. It is not acceptable to hand in the same paper for two or more courses or clerkships to meet the Honors requirement. It is also inappropriate to hand in a paper done for another purpose (such as undergraduate or graduate coursework, III, MSRTP, etc.) to fulfill a course Honors paper requirement or to form the basis of a presentation that is a requirement for a clerkship.

Working Together on Course Exercises:

In some of your courses, you will be encouraged to work together on questions covering broad topics or on various projects. It is expected, however, that each student will write his/her own response based on the group's effort. In other words, it would not be proper to write one response and copy that one response as the paper that is turned in by each individual student.

United States Medical Licensing Examination and Your Medical School Training

School Requirement

Students are required to pass Step 1 and both components of Step 2, Clinical Knowledge (CK) and Clinical Skills (CS), of the United States Medical Licensing Examination (USMLE) prior to graduation [formerly, National Board of Medical Examiners (NBME) Parts I and II]. Performance on these examinations provides one method of comparing our students to those at other medical schools and thereby assessing performance relative to a national peer group. The successful completion of all three steps of the USMLE is necessary for obtaining a license to practice medicine.

Cost and Timing of Examinations

Step 1: The current fee for Step 1 is \$495. Students must take Step 1 in the June-July timeframe after the completion of the second year and prior to entering the clinical curriculum. Past performance of our students suggests that those, who have received a Fail grade in either Biochemistry, Anatomy, or Microbiology or two or more Fail grades in any of the first or second year courses, are at a higher risk of having difficulty on the examination. Students whose records fall within one of these categories should consider the option of scheduling the examination to permit a six- to eight-week study period to prepare for Step 1.

Step 2: The current fee for the Step 2 Clinical Knowledge exam is \$495. The Clinical Skills exam component of Step 2 was implemented in mid-2004; the fee is \$1055. Additional funds will be needed for travel and hotel costs when taking this exam at one of five sites in the United States. Students must take Step 2-CK and Step 2-CS in July-September timeframe of the fourth year, even if approved for a fourth year expansion. Scheduling this graduation requirement takes priority over fourth year elective scheduling and extracurricular programs and activities. Requests for delays beyond this timeframe must be approved by Dr. Eveland and are granted only under exceptional circumstances. If either exam is not scheduled within the expected timeframe, the Dean's MSPE will indicate the test date and consequences of it being out of compliance with the School's requirement.

Step 3: The current fee for Step 3 is \$690. Graduates take the exam during the first year of residency training.

Note: The fee amounts listed above are current at the time of print, and are subject to change every year. Please visit the USMLE website at www.usmle.org for current fee information.

Implications If Examination Is Failed

Students who do not pass the USMLE examinations are reviewed by the Student Progress Committee. Students are expected to develop a study plan for retaking Step 1, and should retake it as soon as possible before continuing in the clinical curriculum. Generally, if a student is not having academic difficulty in the curriculum, she or he is permitted to attempt the examination again. If a student has had difficulty in the basic science curriculum, the Student Program Committee may recommend dismissal if Step 1 is failed twice.

If a student fails Step 1, s/he should contact the Dr. Eveland to discuss the timing of retaking the examination in relation to his/her clinical schedule. With the Step 1 examination being given essentially year-round, the student is usually permitted to complete the clerkship in which s/he is currently enrolled. Most students find that having completed a clerkship helps in preparing for the retake of Step 1.

For students who are having difficulty both in the curriculum and with the USMLE examinations, the Student Progress Committee will take a more active role in the determination of the student's academic program. In instances in which a student is having serious academic difficulty, the Student Progress Committee may require the student to develop an independent study program of three to six months in duration.

If either component of Step 2 is failed in the summer of the senior year, the student's clinical schedule needs to be modified to allow time for studying and retaking the exam within a timeframe that allows a passing score to be reported prior to the student entering his/her residency rank order list. The status of completion of either component of Step 2 is included in the Dean's MSPE. If Step 2 is failed a second time and if the student has had difficulty in the curriculum, the Student Progress Committee may recommend dismissal.

If either Step 1 or either component of Step 2 is failed three times, the Student Progress Committee will consider a dismissal recommendation. In rare cases, the Committee may allow a fourth test administration upon petition by the student and with assurances that the student will spend adequate time in preparation.

Registration for USMLE

The USMLE certification registration, application, and instructions for completing them are available on the web at www.nbme.org. The certification registration form, which is valid for five years, requires a current picture of a specific size, the School's seal, and Registrar's signature. It is important that you meet the specified deadline for registration for the examination. This will enable you to receive from the National Boards certification of the three-month timeframe in which you can schedule a testing date with Prometrics Testing Center for taking the one-day computerized examination. If you do not secure a Step 1 testing date in a timely manner, your entry into the clinical curriculum will be delayed. Similarly, if you do not secure a testing date in a timely manner for Step 2 CK or CS, your continuance in the curriculum will be delayed. If you are unable to take the examination in the timeframe required by the School, your progress in the curriculum may be interrupted.

If you wish to request any special accommodations during the test administration, you must provide additional information required by the NBME Office that includes specific, current documentation related to the requested accommodation. If you have any questions about this, please refer to USMLE information bulletin or contact Dr. Eveland. All accommodations must be approved by the NBME Office prior to the testing date.

USMLE Test Administrations and Test Statistics

Step 1: The Step 1 examination is given throughout the year, but is usually taken the first time in June-July after completion of the basic science curriculum and must be taken prior to entering the clinical curriculum. The minimum passing score is currently 185. Nationally, about 10% of the first-time examinees fail this examination. The national test mean is 218 with a standard deviation of 23.

Step 2-CK and CS: The Step 2-CK examination is given throughout the year, but must be taken the first time in the July-September timeframe of the fourth year of medical school. The minimum passing score is currently 184. Nationally, about 6% of first-time examinees fail this examination. The national test mean is 221 with a standard deviation of 24. The Step 2-CS must also be in the July-September timeframe of the fourth year of medical school, even if approved to expand the fourth year. This is a Pass/Fail examination.

Step 3: The Step 3 examination is taken during the first year of residency training.

UW Performance: In the past several years, the total mean score on Step 1 of our students has been at about the National mean score. Our failure rate has ranged from 1 - 5% as compared to the National average of 6 - 10%. For Step 2-CK, our students' performance has also been at about the National mean score; the failure rates are similar to the National average of 6%. For Step 2-CS, our fail rate has varied from 1 to 5 students per year. For Step 3, our graduates have consistently performed well.

Score Report: The results of your performance sent to you by the National Board Office on Step 1 and Step 2-CK will be reported as a total numeric score and a pass/fail designation. In addition, you will receive a graph showing how you scored in the major content areas. You will receive more specific information on the scoring of the examination with your USMLE application materials. Step 2-CS is reported as a pass/fail designation only.

The USMLE transcript is released to residency directors by the student as part of the Electronic Residency Application Service (ERAS). Thus, the USMLE transcripts are a routine part of the residency application process, and the USMLE score may be used to screen candidates for interviews.

USMLE Certified Transcript of Scores (Prepared by the NBME)

If a student needs to request an official copy (transcript) of performance on either Step 1 or Step 2, this will be provided through the NBME Office in accordance with USMLE policies for reporting scores to third parties, such as a residency program, but not to a medical licensing authority. This transcript will be provided only through ERAS or a written request by the examinee who has taken Step 1 and/or Step 2, has not yet taken Step 3, and who may have also taken but not passed an NBME Part examination. The transcript includes the entire examination history (pass and fail scores for all Steps taken to date). The additional related information which is also noted includes an indicator of special circumstances (such as "did not complete", "irregular behavior", "special testing accommodations") and an indicator of prior history in taking NBME or FLEX examinations. The examinee cannot choose which Step score will be shown on the transcript. For example, if both Steps 1 and 2 were taken, both will be reported, even if the request was for Step 1 only. (For additional information, see NBME Bulletin provided with your USMLE application.)

Importance of the National Board Scores

To the School: Passage of Step 1 and both components of Step 2 is a graduation requirement. Timeframes are set by which students must successfully complete the Steps in order to make progress in the medical school curriculum. The USMLE numeric scores are not used in the Dean's MSPE prepared for students' applications to residency programs. The Dean's MSPE does include a statement related to the student's status in meeting this graduation requirement, i.e. Step 1 has been passed; Step 2 will be retaken in December, etc. If either of the Step 2 exams has not been scheduled within the timeframe required, this will be noted in the Dean's MSPE since the residency directors expect our students to have completed these licensure applications prior to interviewing.

For Licensure: Passage of the USMLE Steps 1, 2-CK, 2-CS, and 3 is now the single pathway for licensure. States may set a score level that needs to be met to be considered for a license. There is a seven (7) year limit between the date Step 1 was taken to when Step 3 is completed. If the timeframe exceeds seven years, you may be required to retake Step 1.

To Residency Program Directors: Many residency program applications ask for information about licensure examinations. In most cases, program directors are interested in whether the student has passed Step 1 and Step 2 CK and CS and also prefer to have the scores prior to including the student in their residency rank order list. It is important to the residency director that the student accepted into the program is capable of meeting licensure requirements. If a resident is not successful in fulfilling the licensure examination requirement by the end of the first year of residency, the resident may not be able to continue in the program. In addition, the residency director may believe that successful performance on the USMLE is predictive of performance on specialty boards, which may be important to the evaluation of the residency program.

As some residency programs are becoming more competitive because of either the reduction in the number of positions or the increase in the number of applicants, the USMLE scores are being used in various ways in making decisions on whom to select for interviews. The following programs consistently use the scores in the screening process: Anesthesiology, Emergency Medicine, Neurosurgery, Obstetrics & Gynecology, Ophthalmology, Orthopaedic Surgery, Otolaryngology, Radiology, Surgery, and Urology. Other specialties may request and use the scores, but this appears to be more dependent on the residency program than the specialty. With the implementation of ERAS, submission of USMLE official transcripts has become a routine part of the residency application process for all specialties.

To the Student: The importance that you place on the level of the score you wish to achieve is your decision. The amount of study time may be important to your overall strategy. You must also be aware that, if you take Step 1 or Step 2-CK and receive a passing score, you cannot retake the examination to improve your score. The issue of the use of the USMLE scores, particularly Step 1, in the residency selection process is one about which you need to be aware so that you can make a decision on how you wish to approach this examination. Many programs want to also see the Step 2-CK scores as part of the residency application process. With the implementation of the ERAS noted earlier, most residency programs now expect to receive official transcripts for both Step 1 and Step 2-CK during the application timeframe.

Important Note: Please retain your score reports sent to you from the National Board Office, as you may need them for residency applications. In addition, you will need the information contained in these reports when you apply for licensure for the first-year of residency and for Step 3.