

# Welcome To UMHS!

Welcome to the University of Medicine and Health Sciences, and congratulations on taking the next step toward your dream of becoming a doctor.

At UMHS, we are dedicated to your success. This catalog is an important tool that can be used for planning your future at our medical school. It contains valuable information on everything from courses and curriculum, faculty, licensure, our policies, and more. Please read this guide carefully and don't hesitate to reach out to us with any questions you may have. We look forward to helping you succeed on your journey to earn your M.D. and beyond.

### Purpose of the Institution

### **Our Mission**

The University of Medicine and Health Sciences is committed to educating uniquely skilled and diverse medical professionals eager to meet the need for physicians in various settings throughout the United States and the world. With a focus on quality patient care, and utilizing the latest in advanced technological instruction and personalized education, our aim is to produce genuinely passionate physicians who are highly prepared for practice in a changing medical landscape.

### **Our Vision**

Our vision is to continue to be a vanguard among alternative medical schools. We will provide a safe, modern environment conducive to helping promising medical students achieve their dreams of becoming doctors—who not only become professionals, but lead their professions through excellence.

### **Our Approach**

Our approach to medical education is unique. We combine top-quality faculty, primarily from the U.S. and Canada, with a personalized approach to educating students. We offer leading-edge facilities to give our students the best training, yielding doctors who perform well on the United States Medical Licensing Examination (USMLE) and earn highly sought-after residencies in the U.S. and Canada.

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### Academic Calendar

### Winter 2022 Term (January-April 2022)

Tuesday, January 4

Registration Confirmation, fifth semester, Maine

Wednesday, January 5

Orientation and Classes Begin, fifth semester, Maine Last Day to Arrive and/or Confirm Registration, Maine

Wednesday, January 5-Friday, January 7

New Student Orientation and Registration Confirmation

Basic Sciences, St. Kitts

Thursday, January 6, Friday, January 7, and Sunday, January 9

Continuing Student Registration Confirmation

Basic Sciences, St. Kitts

Monday, January 10

Classes Begin, Basic Sciences, St. Kitts

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

Friday, January 14

Last Day to Arrive and/or Confirm Registration, St. Kitts

Saturday, January 15

White Coat Ceremony

Friday, April 15-Wednesday, May 4

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Spring 2022 term

Friday, April 22

Last Day of Final Exams/End of Semester

### Spring 2022 Term (May-August 2022)

Tuesday, May 3

Registration Confirmation, fifth semester, Maine

Wednesday, May 4

Orientation and Classes Begin, fifth semester, Maine Last Day to Arrive and/or Confirm Registration, Maine

Wednesday, May 4-Friday, May 6

New Student Orientation and Registration Confirmation,

Basic Sciences, St. Kitts

Thursday, May 5, Friday, May 6, and Sunday, May 8

Continuing Student Registration Confirmation,

Basic Sciences, St. Kitts

Monday, May 9

Classes Begin, Basic Sciences, St. Kitts

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

Friday, May 13

Last Day to Arrive and/or Confirm Registration, St. Kitts

Saturday, May 14

White Coat Ceremony

Friday, August 12-Wednesday, August 31

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Fall 2022 term

Friday, August 19

Last Day of Final Exams/End of Semester

#### Fall 2022 Term (September-December 2022)

Tuesday, August 30

Registration Confirmation, fifth semester, Maine

Wednesday, August 31

Orientation and Classes Begin, fifth semester, Maine Last Day to Arrive and/or Confirm Registration, Maine

Tuesday, August 30-Friday, September 2

New Student Orientation and Registration Confirmation

Basic Sciences, St. Kitts

Thursday, September 1, Friday, September 2, and Sunday, September 4

Continuing Student Registration Confirmation

Basic Sciences, St. Kitts

#### Monday, September 5

Classes Begin, Basic Sciences, St. Kitts

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

Friday, September 9

Last Day to Arrive and/or Confirm Registration

Saturday, September 10

White Coat Ceremony

Monday, September 19

Independence Day, Campus Closed

Friday, December 9-Wednesday, January 4

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Winter 2023 term

Friday, December 16

Last Day of Final Exams/End of Semester

### Winter 2023 Term (January-April 2023)

#### Wednesday, January 3-Friday, January 6

New Student Orientation and Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, January 5, Friday January 6

Continuing Student Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, January 5

Registration Confirmation, fifth semester, Maine

Last Day to Arrive and/or Confirm Registration, Maine

#### Monday, January 9

Classes Begin, Basic Sciences, St. Kitts

Orientation and Classes Begin, fifth semester, Maine

#### Monday, January 9-Friday, January 13

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

#### Friday, January 13

Last Day to Arrive and/or Confirm Registration, St. Kitts

#### Saturday, January 14

White Coat Ceremony

#### Friday, April 14-Wednesday, May 3

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Spring 2023 term

#### Friday, April 21

Last Day of Final Exams/End of Semester

#### Spring 2023 Term (May-August 2023)

#### Wednesday, May 3-Friday, May 5

New Student Orientation and Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, May 4-Friday, May 5

Continuing Student Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, May 4

Registration Confirmation, fifth semester, Maine

Last Day to Arrive and/or Confirm Registration, Maine

#### Monday, May 8

Classes Begin, Basic Sciences, St. Kitts

Orientation and Classes Begin, fifth semester, Maine

#### Monday, May 8-Friday, May 12

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

#### Friday, May 12

Last Day to Arrive and/or Confirm Registration, St. Kitts

#### Saturday, May 13

White Coat Ceremony

#### Friday, August 11-Wednesday, August 30

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Fall 2023 term

#### Friday, August 18

Last Day of Final Exams/End of Semester

#### Fall 2023 Term (September-December 2023)

#### Tuesday, August 29-Friday, September 1

New Student Orientation and Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, August 31, Friday, September 1

Continuing Student Registration Confirmation

Basic Sciences, St. Kitts

#### Thursday, August 31

Registration Confirmation, fifth semester, Maine

Last Day to Arrive and/or Confirm Registration, Maine

#### Monday, September 4

Classes Begin, Basic Sciences, St. Kitts

Orientation and Classes Begin, fifth semester, Maine

#### Monday, September 4-Friday, September 8

Late Arrival and/or Registration Confirmation (Fee: \$50 U.S. per day)

#### Friday, September 8

Last Day to Arrive and/or Confirm Registration

#### Saturday, September 9

White Coat Ceremony

#### Tuesday, September 19

Independence Day, Campus Closed

#### Friday, December 8-Wednesday, January 3

Student Portal Pre-Registration and Confirmation Appt.

Requests Open for Winter 2024 term

#### Friday, December 15

Last Day of Final Exams/End of Semester

## **Academics**

### Curriculum

### **Basic Science Curriculum**

| SEMESTER | DEPARTMENT | COURSE NO. | COURSE NAME                                | CREDITS | TOTAL |
|----------|------------|------------|--|---------|-------|
| 1        | MANT       | 0603       | Gross and Developmental Anatomy            | 11      |       |
| 1        | MANT       | 0620       | Histology                                  | 5       |       |
| 1        | MBIO       | 0652       | Medical Cell Biology                       | 6       |       |
| 1        | MICM       | 0660       | Physical Diagnosis                         | 2       |       |
| 1        | MBEH       | 0663       | Evidence Based Medicine                    | 1       | 25    |
| 2        | MBIO       | 0760       | Biochemistry                               | 7       |       |
| 2        | MBEH       | 0711       | Physiology                                 | 10      |       |
| 2        | MMCR       | 0770       | Genetics                                   | 3       |       |
| 2        | MBEH       | 0920       | Biostatistics and Epidemiology             | 2       |       |
| 2        | MMCR       | 0823       | Immunology                                 | 3       | 25    |
| 3        | MBEH       | 0830       | Behavioral Science and Medical Ethics      | 6       |       |
| 3        | MNEU       | 0810       | Neuroscience/Neuroanatomy                  | 7       |       |
| 3        | MNEU       | 0814       | Clinical Skills (Neurology and Behavioral) | 1       |       |
| 3        | MPAT       | 0800       | Pathology I                                | 9       |       |
| 3        | MMCR       | 0822       | Microbiology                               | 5       | 28    |
| 4        | MPHM       | 0910       | Pharmacology and Therapeutics              | 7       |       |
| 4        | MPAT       | 0900       | Pathology II                               | 12      |       |
| 4        | MICM       | 0930       | Introduction to Clinical Medicine I        | 6       | 25    |

Curriculum as of May 2022. Subject to change. For the most current version of our curriculum and course descriptions, visit umhs.org/bsp.

### **Extended Basic Science Curriculum**

| SEMESTER | DEPARTMENT | COURSE NO. | COURSE NAME                                | CREDITS | TOTAL |
|----------|------------|------------|--|---------|-------|
| 1        | MANT       | 0603       | Gross and Developmental Anatomy            | 11      |       |
| 1        | MBIO       | 0652       | Medical Cell Biology                       | 6       |       |
| 1        | MICM       | 0660       | Physical Diagnosis                         | 2       |       |
| 1        | MBEH       | 0663       | Evidence Based Medicine                    | 1       | 20    |
| 2        | MBIO       | 0760       | Biochemistry                               | 7       |       |
| 2        | MMCR       | 0823       | Immunology                                 | 3       |       |
| 2        | MANT       | 0620       | Histology                                  | 5       |       |
| 2        | MBIO       | 0770       | Genetics                                   | 3       | 18    |
| 3        | MMCR       | 0822       | Microbiology                               | 5       |       |
| 3        | MPHY       | 0711       | Physiology                                 | 10      |       |
| 3        | MBEH       | 0920       | Biostatistics and Epidemiology             | 2       | 17    |
| 4        | MNEU       | 0810       | Neuroscience/Neuroanatomy                  | 7       |       |
| 4        | MNEU       | 0814       | Clinical Skills (Neurology and Behavioral) | 1       |       |
| 4        | MPAT       | 0800       | Pathology I                                | 9       |       |
| 4        | MBEH       | 0830       | Behavioral Science and Medical Ethics      | 6       | 23    |
| 5        | MPAT       | 0900       | Pathology II                               | 12      |       |
| 5        | MPHM       | 0910       | Pharmacology and Therapeutics              | 7       |       |
| 5        | MICM       | 0930       | Introduction to Clinical Medicine I        | 6       | 25    |

Curriculum as of May 2022. Subject to change. For the most current version of our curriculum and course descriptions, visit umhs.org/ebs.

### **Basic Science Program**

The Basic Science Program, which consists of semesters one through four, is held at UMHS' state-of-the-art campus, located on the exotic Caribbean Island of St. Kitts. We offer a traditional medical school curriculum modeled after schools in the United States. All courses are taught in English. The curriculum utilizes problem-based learning, with an emphasis on clinical correlations, and a thorough understanding of the basic biomedical sciences. Students are introduced to history-taking, physical exam skills, and problem-solving techniques beginning in their first semester. Our Basic Science faculty are highly credentialed and recruited primarily from the United States. Here, student success is of paramount importance, so we maintain a low student-to-faculty ratio to ensure students receive a quality education.

#### **Clinical Settings**

A compelling differentiator at UMHS is our students' access to a variety of clinical settings. Not only are students involved at community health centers, local hospitals, and with professional patients, but they also have access to our virtual hospital ward on the St. Kitts campus. Students have access to the simulation lab throughout the Basic Science Program, where it is utilized during the Physical Diagnosis, Physiology, and Introduction to Clinical Medicine courses. In the lab, students work with cutting-edge human simulators in a 24-bed hospital ward setting to integrate the lessons of the Basic Science Program in a clinically relevant manner. Very few schools in the United States or the Caribbean have simulation centers that can compare to the UMHS facility.

#### **Examinations**

During the Basic Science Program at UMHS, students take comprehensive block examinations at various points throughout each semester.

UMHS has also incorporated the NBME shelf examinations into the academic program—these are the same examinations that U.S. medical students take. Shelf examinations are made up of questions that are similar in style and content to those questions on the United States Medical Licensing Exam (USMLE). As a result, throughout the Basic Science Program, students are preparing for Step 1 of the USMLE.

NBME shelf examinations are typically given as final exams at the end of each semester. Students are provided with a complete analysis of each exam, which shows both their strengths and weaknesses, as well as how they compare to their counterparts in U.S. medical schools.

UMHS uses ExamSoft to administer examinations. Please visit https://ei.examsoft.com/GKWeb/login/umhssk to learn more about the minimum system requirements needed to run ExamSoft on your computer.

#### Laptop Computers/ Wireless Campus

High-speed wireless internet access is available throughout the entire campus. All students are required to bring a laptop computer to class. Students can access faculty PowerPoint lectures, class notes, course objectives, and curriculum from anywhere on campus or from home via remote login. The UMHS Learning Management System (LMS) can be accessed by students both in St. Kitts and the United States. Following the U.S. standard, UMHS provides students with a digitally enhanced database of histology and pathology images to be used throughout both courses.

Visit https://www.umhs-sk.org/technologyrequirements to learn more about laptop and tablet requirements.

### **Basic Science Curriculum and Objectives**

#### Semester 1

| COURSE                          | CREDITS    |
|---------------------------------|------------|
| Gross and Developmental Anatomy | 11 Credits |
| Histology                       | 5 Credits  |
| Medical Cell Biology            | 6 Credits  |
| Physical Diagnosis              | 2 Credits  |
| Evidence Based Medicine         | 1 Credit   |
| TOTAL                           | 25 Credits |

#### **MANT 0603**

#### **Gross and Developmental Anatomy (11 credits)**

Anatomy focuses on the gross structure of organs and their function, and through clinical correlations, relates each to clinical medicine. An Anatomical Learning Resource Center has been established to utilize computer-based instruction, anatomical models, and radiographic materials, as well as supervised laboratory sessions focused on dissecting various parts of the human body. Students study the structure and function of all organs with some interaction with cellular structure. This course incorporates an understanding of how embryological processes give rise to the mature body form. When this course is complete, each student will have extensive knowledge of the gross anatomy and development of the entire human body as it relates clinically to the practice of medicine.

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Identify anatomical structures by their location, dimensions, relationship to other structures, surface projections, and functions.
- 2. Identify the nerve supply of anatomical structures.
- 3. Identify the vascular supply of anatomical structures.
- 4. Describe the relationship between morphology and function.
- 5. Describe the embryological development of the adult structures.
- 6. Apply anatomical knowledge to clinical scenarios.

#### MANT 0620 Histology (5 credits)

This course centers on the study of the microscopic structure of normal human cells, tissues, and organs. Virtual microscopy is used to study the structure of basic tissue types and their integration into organs and organ systems. The lectures correlate microscopic and gross anatomy with basic histophysiology and function of organ systems. Upon completion of the course, the student must be able to identify and describe the function of cells, tissues, structures, and organs of the human body presented via lecture and digital imagery. Students must complete specific performance objectives, which accompany individual lecture segments, and, where appropriate, be able to integrate histology with other classes of the curriculum.

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Describe the microscopic structure of the organ systems.
- 2. Relate system structure to its basic physiological function.
- 3. Identify structures on micrographs, noting the information revealed by various staining techniques.
- 4. Relate basic histopathology to the etiology of disease states.
- Correlate microscopic tissue structure with Medical Cell Biology and Gross and Developmental Anatomy.

#### MBIO 0652 Medical Cell Biology (6 credits)

Medical Cell Biology is offered during the first semester in the Basic Science Program. In Medical Cell Biology, students will study medically important aspects of cellular and molecular biology contributing to human disease. Topics covered will include: cellular structure and function, membrane structure and intracellular transport, genome structure and DNA replication, control of gene expression, regulation of cell division, cell signaling pathways, regulation of cell death pathways, stem cell biology, fundamentals of cellular immunology, and inflammation. This course will incorporate detailed clinical cases with discussions of the mechanisms of disease, drug mechanisms of action and clinical techniques all relevant to topics in advanced cell and molecular biology. The course concludes with several lectures designed to integrate the course material with detailed analysis and discussion of specific complex diseases including cancer, diabetes, cardiovascular disease, pulmonary disease, and dementia. This integrative approach to the molecular and cellular mechanisms of disease equips students with the necessary knowledge and insight to apply current and future advances in the basic sciences to clinical medicine and patient care.

#### **OBJECTIVES**

- 1. Understand the molecular basis of normal and aberrant cellular function.
- 2. Understand how cellular molecules are organized, transported, and cooperate to maintain cellular structure and function and how alterations in these processes contribute to disease.

- Understand the regulation of gene expression and how cells alter gene expression in response to normal cellular function, cellular stress, and disease.
- Describe how cells, tissues, and organs cooperate to maintain homeostasis and the impact of disrupted homeostasis on disease development and progression.
- 5. Understand the molecular and cellular basis of complex diseases and the molecular basis of drug action used for treatment.
- Apply the use of cellular and molecular clinical assays for disease diagnosis, identification of disease markers for patient stratification and analysis of drug targets to determine drug efficacy.

#### MICM 0660 Introduction to Physical Diagnosis (2 credits)

This course is designed to provide early exposure to clinical medicine. Students are instructed in patient interviewing and communication skills. They also receive hands-on examination skills in the musculoskeletal system using simulated and standardized patients. Additionally, clinical correlations and medical imaging are presented in conjunction with the Gross and Developmental Anatomy course. Professionalism in doctor-patient, doctor-doctor, and doctor-society interaction is stressed.

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Determine the importance of comprehensive and focused history-taking.
- 2. Obtain a complete medical history from the patient and or informant.
- 3. Identify and demonstrate various verbal and non-verbal communication skills while conducting the patient interview.
- 4. Recognize and demonstrate professionalism while interacting with patients, family, peers, and teachers.
- 5. List the various parameters of vital signs and obtain vital signs.
- 6. Identify the various steps in examining the cardiac, respiratory, and musculoskeletal systems.
- 7. Demonstrate the skills in performing the physical examination of the cardiac, respiratory, and musculoskeletal systems.

### MBEH 0663 Evidence Based Medicine (1 credit)

The field of medicine is rapidly evolving. Thus, a well-trained physician needs to develop research skills and the ability to apply research evidence to ensure safe clinical practices. In this course, students will be introduced to the fundamental principles of evidence-based practices using real-world research, and clinical questions and problems. They will learn how to identify, retrieve and appraise relevant studies, and to interpret the results to answer their clinical questions.

#### **OBJECTIVES**

- 1. Outline the basic principles of and recognize the rationale for the practice of Evidence-Based Medicine.
- Conduct efficient searches on-line to acquire quality evidence using reliable/reputable terms and tools in databases such as PubMed, EBSCO, and Cochrane library.
- 3. Describe the approach to clinical research design and common statistical tests used in these studies: meta-analyses, systematic reviews, randomized controlled trials, case-control studies, cohort studies, descriptive studies, and qualitative studies.
- 4. Critically appraise the most common types of clinical research papers (interventions, harm, diagnostic tests, and systematic reviews) based on the individual patient's unique values and circumstances.

#### Semester 2

| COURSE                         | CREDITS    |
|--------------------------------|------------|
| Physiology                     | 10 Credits |
| Biochemistry                   | 7 Credits  |
| Genetics                       | 3 Credits  |
| Biostatistics and Epidemiology | 2 Credits  |
| Immunology                     | 3 Credits  |
| TOTAL                          | 25 Credits |

#### MPHY 0711 Physiology (10 credits)

This course concentrates on how the various organ systems that comprise the human body function. The major objective of this course is to enable the student to acquire a sound understanding of the mechanisms upon which life depends through an integrated study of the many control systems that maintain homeostasis. Emphasis is placed on the mechanisms that maintain a homeostasis under a variety of conditions. The course begins with a study of basic physiological principles, such as the transport of ions, intracellular signaling, osmosis, and membranes and their electrical properties. Following the presentation of the basic principles of cellular physiology (which includes muscle and nerve), cardiovascular, respiratory, renal, gastrointestinal, endocrines, and reproductive physiology are taught and integrated into total body function. Temperature regulation and the integrated physiological responses to exercise and adverse environments are also presented. Most disease conditions result from abnormal functioning (i.e., disturbance of homeostasis) of one or more of the basic control systems. Thus, it is of fundamental importance that the future physician understands the regulatory mechanisms taught in this basic medical science course. After completing the course, students will have a clear understanding of how the major systems of the body operate in an integrated fashion necessary to maintain a homeostatic state. (Prerequisites: Completion of Gross and Developmental Anatomy, Medical Cell Biology, and Histology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- Describe the fundamental mechanisms underlying normal function of cells, tissues, organs, and organ systems of the human body, commensurate with the requirements for a physician providing care to patients.
- 2. Explain the basic mechanisms of homeostasis by integrating the functions of cells, tissues, organs, and organ systems.
- Apply knowledge of functional mechanisms and their regulation to explain the pathophysiology underlying common diseases.
- 4. Describe the molecular and cellular mechanisms of physiological processes that are the basis for therapeutics and drug targets that are introduced later in the curriculum.
- 5. Effectively solve basic problems in physiology and pathophysiology, working independently and in groups.

#### MBIO 0760 Biochemistry (7 credits)

This course focuses on the interrelationship and regulation of metabolic pathways as it pertains to understanding the mechanism of disease states. The student is prepared accordingly through a discussion of the principles of biochemistry, including anabolic and catabolic reactions as permitted by the generation and use of energy. Biochemical mechanisms are utilized to justify particular signs and symptoms noted in certain clinical conditions. In doing so, a comprehensive understanding of the metabolism of proteins, carbohydrates, lipids, and other nitrogen-containing molecules is achieved. (Prerequisites: completion or co-enrollment of Medical Cell Biology and Histology)

#### **OBJECTIVES**

- 1. Have a clear understanding of the subcellular organelles, various cellular proteins, and signaling mechanisms that they have studied in medical cell biology with the biochemical functions that go on in each cell. Students will have a thorough understanding of the fundamental principles of biochemistry, especially in relation to various metabolic pathways that are important in understanding a medical disorder. Students will be able to integrate various metabolic pathways for overall understanding of the metabolic processes that go on in our cells.
- 2. Have a better understanding of the fates of various macro and micronutrients that we take in through our diet. Students will have a better understanding of the digestion and absorption process of all these molecules, and of the abnormalities that can occur during these processes. Students will also be able to connect the role of various vitamins and minerals in the metabolic pathways, and the abnormalities that can occur when these micronutrients are deficient or in excess. This will eventually enable students to understand the treatment and monitoring of these disorders.
- 3. Integrate metabolic processes with clinical disorders and applied physiological aspects. This kind of integration will provide students with a better understanding of physiological changes that will go on in the body, according to the physiological status of the cell. Constant integration of clinical disorders is done throughout the course so that students will have a better understanding of a disorder at the molecular level. This will assist students in clinical diagnosis, modes of treatment, monitoring, and prognosis of a disorder, along with helping to determine the differential diagnosis for disorders which share similar phenotypes.

- 4. Have a better understanding of normal biochemical functions of various enzymes, which will assist them in understanding the disorder when there is abnormality in any of these enzymes. With the thorough background of enzymes and biochemical processes, students will have a better understanding of the rationale for using various medications in disorders affecting metabolic pathways.
- 5. Have sufficient exposure to all the high yield concepts and questions for their preparation towards the USMLE Step 1 exam and beyond.

#### MBIO 0770 Genetics (3 credits)

This course provides a description of the human genome, including the details of DNA, gene, and chromosome structure, the basics of gene expression, and the various forms of inheritance. The overall goal is to use this knowledge to better understand the molecular mechanisms of how genetic mutations lead to the single gene and complex disorders described in the textbook case studies. Specific course topics include gene mapping and disease gene identification, the treatment of genetic disease, prenatal diagnosis, cancer genetics, and pharmacogenetics. (Prerequisite: Completion of Medical Cell Biology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- Understand the molecular mechanisms of how chromosomal abnormalities and genetic mutations lead to aneuploidies, genomic disorders, single gene diseases, and complex disorders.
- 2. Understand the strategy and technology used for gene mapping and disease gene identification.
- 3. Describe the current approaches for the treatment of genetic disease, including gene therapy.
- 4. Understand the recent advances in prenatal diagnosis, cancer genetics, and pharmacogenetics.
- Other skills learned by the students will be evaluation of pedigrees, calculating recurrence risk, and using Hardy-Weinberg to determine mutation frequencies in populations.

#### **MBEH 0920**

#### **Biostatistics and Epidemiology (2 credits)**

The principles of biostatistics are introduced in this course, which emphasizes both the practice of interviewing and collecting data. The epidemiology of disease and concepts of public health and industrial medicine are also covered in this course. Finally, the course will end with discussions of broad issues related to healthcare delivery, healthcare legislation and costs, and a comparative discussion of healthcare systems. (Prerequisite: None)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Understand the basic concepts and principles of epidemiology.
- 2. Identify the basic strategies for observational and experimental studies.
- 3. Use the epidemiologic approach to define and measure the occurrence of disease and health in populations.
- 4. Identify data needs for calculating standard epidemiological measures.

- 5. Understand the collection of scientific data, and appropriate analysis using statistical tests and results interpretation.
- Distinguish the roles of epidemiology and biostatistics in the prevention of disease and the improvement of health.

#### MMCR 0823 Immunology (3 credits)

This course begins with a general overview and introduction to the immune system, including a description of the cells and tissues involved with innate and adaptive immunity. This is followed by descriptions of the molecular and cellular mechanisms employed in innate immune responses, and for those used in the humoral and cell-mediated arms of adaptive immunity. This includes the details of antigen processing and presentation by antigen presenting cells and the central role of MHC molecules in this process. The maturation and selection of B and T lymphocytes and the production of the diverse antigen receptors required for lymphocyte activation are also described in detail.

The pathways of lymphocyte activation are followed by an explanation for the generation of the different effector functions and memory cells produced during a humoral or cell-mediated response. The last half of the course is focused on more clinically related topics, including tolerance and autoimmunity, transplantation and immunosuppression, immunotherapy strategies against tumors, hypersensitivity, and the consequences of congenital immunodeficiencies. The course ends with a description of the tools and assays of immune functions. (Prerequisite: Completion of or co-enrollment in Histology)

#### **OBJECTIVES**

- 1. Describe the cells and tissues involved with innate and adaptive immunity.
- Know the molecular and cellular mechanisms employed in innate immune responses, and those used in the humoral and cell-mediated arms of adaptive immunity.
- 3. Know the details of antigen processing and presentation by antigen presenting cells and the central role of MHC molecules in this process.
- 4. Understand the maturation and selection of B and T lymphocytes and how gene rearrangement generates the diverse antigen receptors required for lymphocyte activation.
- Understand how activated lymphocytes carry out different effector functions and produce memory during a humoral or cell-mediated adaptive response.
- 6. Understand the clinical aspects of immunology including tolerance and autoimmunity, transplantation and immunosuppression, immunotherapy strategies against tumors, hypersensitivity reactions, and the consequences of congenital immunodeficiencies.

#### Semester 3

| COURSE                                   | CREDITS    |
|--|------------|
| Pathology I                              | 9 Credits  |
| Neuroscience/Neuroanatomy                | 7 Credits  |
| Clinical Skills (Neurology & Behavioral) | 1 Credit   |
| Microbiology                             | 5 Credits  |
| Behavioral Science and Medical Ethics    | 6 Credits  |
| TOTAL                                    | 28 Credits |

#### MPAT 0800 Pathology I (9 credits)

This course introduces students to the cellular system of each organ and traces the morphological changes in a cell that are responsible for a disease in an organ. As cells undergo alteration, their change in function is studied in respect to its deviation from the "normal" state. Course presentation includes the response of cells, tissues and organs to disease and injury, the normal and adapted cell, degeneration and necrosis, inflammation, fluid and hemodynamic derangements, neoplasia, immunopathology, and systemic, environmental, and nutritional disease. Lecture discussions are supplemented by a study of gross and microscopic specimens. (Prerequisites: Completion of Genetics, Biochemistry, Immunology, and Physiology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- Understand, identify, and describe changes that happen in cell injury and adaptation. Students must be able to solve clinical problems by explaining underlying pathology.
- 2. Define acute and chronic inflammation, identify various types of cells in inflammation, and explain the role of chemical mediators. Students must be able to analyze lab reports pertaining to inflammatory diseases.
- 3. Describe the various types of hemodynamic disorders, identify the structural changes, and explain the underlying pathology.
- 4. Name various benign and malignant tumors, understand the differences between benign and malignant tumors, explain the biology of tumors, correctly identify histological features, and have an overview of important cancers.
- 5. Explain the immune basis of primary immune deficiency and autoimmune disorders, describe various changes seen in the organs affected, and be able to interpret lab reports.
- Define, explain, and draw an algorithm to explain various types of anemia. Students should be able to evaluate cases of anemia and interpret lab reports.
- 7. Describe various types of reactive conditions associated with white cell abnormalities, discuss the various types of hematological malignancies based on pathogenesis, and be able to interpret lab investigations.
- Understand the pathogenesis of tumors involving the kidneys and prostate. Students must be able to identify histological features, interpret investigations, and explain clinical features of renal and prostate tumors.
- 9. Identify and distinguish testicular tumors. Discuss the morphological features and clinical presentations of major testicular tumors.
- Differentiate and describe various skin disorders of immune, infectious, and neoplastic origin.

11. Define, describe, and identify diseases affecting the central nervous system (CNS). Students should be able to explain the pathogenesis of various developmental, demyelinating, dementia, and tumors affecting the CNS.

#### MNEU 0810 Neuroscience/Neuroanatomy (7 credits)

This course begins with an overview of the entire nervous system. As the course progresses, the focus is on comprehending the basic structure and function of each level of the nervous system, integrating both the anatomy and physiology of the nervous system. The principles that underlie the anatomical structure of each system of the brain are correlated with its physiology; correlations between the functional deficits and the pathological anatomy in several neurological diseases which require working knowledge of anatomy and physiology are stressed. Special attention is given to integrating current understandings of human neurological and psychiatric diseases, and each topic is supplemented by relevant lab exercises, which include detailed brain dissection and exposure to angiograms, CT scans, MRIs, etc. (Prerequisites: Completion of Gross and Developmental Anatomy and Physiology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Determine the location and type of spinal cord injuries.
- 2. Evaluate the status of a neurological patient.
- 3. Perform the neurological exam.
- 4. Identify problems via neuroimaging techniques.
- 5. Discuss site, level, and type of injury.

#### **MNEU** 0814

#### Clinical Skills (Neurology & Behavioral) (1 credit)

In this course, the students will learn the Clinical skills involved in the Neurological and Behavioral Clinical examinations. It will integrate the knowledge previously acquired in Physical Diagnosis, Physiology, and Gross and Developmental Anatomy courses. The course is taught in conjunction and aligned with the Behavioral Science and Neuroscience courses, which are also taught in the EBS 4 and Med 3 semesters. It is designed to lay the foundation for the clinical Neurobehavioral skills essential to the practice of medicine. These skills include obtaining a medical history, performing a physical examination, professionalism, and communication. The organization of the course is predominantly structured as small group instruction and didactic lectures with emphasis on hands-on history taking and physical examination of standardized and professional patients in the Clinical Skills Laboratory. (Prerequisites: Completion of Gross and Developmental Anatomy and Physiology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Identify the common neurological symptoms and signs.
- Demonstrate ability to conduct comprehensive patient interviewing including challenging patient situations and behaviors.
- 3. Recognize the terms used to define key symptoms and signs.
- 4. Perform comprehensive neurological examination.
- 5. Perform mini-mental status examination to assess cognitive functioning.
- Describe the special techniques in specific neurological situations, e.g., comatose patient.
- 7. Identify and interpret the clinical features to localize neurological lesions.

#### MMCR 0820 Microbiology (5 credits)

Microbiology teaches students the basic concepts of infectious disease in a lecture and laboratory setting. The goal of the course is for students to gain a basic knowledge and understanding of microbial diagnosis of bacteria, viruses, fungi, protozoa, and parasites. The etiology, pathogenesis, and genetics of bacterial infection are key foundations to the study of microbes. Students will learn the symptoms that help in diagnosis of a patient and how these symptoms relate to disease. Prevention of disease through methods such as such as vaccines, hand washing, and sterilization and disinfection are stressed, as well as the treatment of infectious disease. In the laboratory, students perform the techniques needed to identify and inform treatment strategies for a variety of gram-positive and gram-negative bacteria. Case studies are used in laboratory sessions to enhance the learning experience. (Prerequisite: Completion of Histology)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Identify the common etiologic agents of the disease and determine the causative agent of the particular case from case clues.
- 2. Classify general characteristics regarding disease or organism, predisposing conditions, epidemiology, mechanism of pathogenicity, and major tests used in identifications.
- 3. Describe mechanisms of virulence and pathogenesis for microorganisms.
- Identify the appropriate therapies, drug mechanism of action and resistance mechanisms for antimicrobials, antivirals, antifungals, and antiparasitics.

#### **MBEH 0830**

#### **Behavioral Science and Medical Ethics (6 credits)**

Behavioral Science and Medical Ethics (6 credits) stresses the complex relationship between psychological make-up and experience by providing a knowledge base for normative and non-normative human development throughout the life cycle. The course also introduces the student to the behavioral basis of clinical medicine by focusing on common behavioral problems and the circumstances that evoke important behavioral or emotional responses. The concept of culturally competent care will be defined, and the basics of recognizing organic and functional psychological disturbances are described. Workshops on realistic clinical problems are an integral part of this course; sexual dysfunction, bereavement, suicide, and sociological disorders receive detailed attention.

Because the medical profession subscribes to a body of ethical parameters developed to guide medical decision making for the wellbeing and benefit of the patient, the Behavioral Science course contains a significant component designed to introduce the medical student to these principles and concepts. This ethical component serves as a basic (ideal) standard of conduct which defines the essentials of honorable behavior for the physician in every clinical and research interaction. It is imperative that any health care professional have knowledge of the medicolegal and ethical issues so that clients are treated with understanding, sensitivity, and compassion. Occasionally, ethical dilemmas arise when physician and patient disagree about values or may face choices that challenge their core values. This segment of the Behavioral Science course strives to provide the UMHS medical student with a foundational framework for ethical decision making.

Additionally, the student should develop increased insight into personal functioning and feelings, and develop the skills needed to act as an empathetic and effective interviewer and behavioral change agent. (Prerequisite: None)

#### **OBJECTIVES**

- Describe the progression through the life cycle and recognize the major milestones from conception to death.
- Explain the psychological and social factors influencing patient behavior, noting how those factors contribute to unhealthy behavior, disease, and compliance or resistance to treatment.
- Describe and demonstrate patient interviewing skills, peer consultation, and interactions with the family.
- 4. Describe the normal processes and pathophysiology of the central and peripheral nervous systems (brain stem, brain, motor systems, and the autonomic nervous systems) as they relate to mental and emotional disorders.
- Construct a differential diagnosis and demonstrate the ability to diagnose disorders according to the DSM-5 criteria.
- 6. Recognize the signs and symptoms of psychopathological disorders and describe the disorders, their signs, and symptoms using proper terminology.
- Describe the general principles of psychotherapy and psychopharmacology, including the basic indications and contraindications.
- 8. Recognize the gender, ethnic, and behavioral (i.e., biopsychosocial) considerations affecting disease treatment and prevention (including psychosocial, cultural, occupational, and environmental), and construct basic interventions to improve patient compliance to treatment.
- 9. Demonstrate an understanding of the four pillars of ethics and how they influence clinical practice.
- Demonstrate understanding of the AMA stance on doctor/patient relationships, conflict of interest, professional boundaries, informed consent, advanced directives, ethical research, and end-of-life care.
- Incorporate guidelines of HIPAA, the AMA and ethics committees, as well as local laws and regulations, in analyzing and resolving ethical dilemmas.

#### Semester 4

| COURSE                              | CREDITS    |
|-------------------------------------|------------|
| Pathology II                        | 12 Credits |
| Pharmacology and Therapeutics       | 7 Credits  |
| Introduction to Clinical Medicine I | 6 Credits  |
| TOTAL                               | 25 Credits |

#### MPAT 0900 Pathology II (12 credits)

Pathology II applies the basic concepts learned in Pathology I to continue the study of the pathologic basis of disease using a physiologic system, or organ-based approach. This course covers red and white cell diseases, male and female genital tracts, and kidney and liver systems. Course presentations include etiology, pathogenesis, and morphologic changes in diseases according to the organ system. Appropriate use of the laboratory is stressed in the diagnosis of disease, while case presentations further emphasize the clinical aspects of the pathologic processes. (Prerequisite: Completion of Pathology I)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- Describe the etiology, pathogenesis, structural and functional manifestations of disease, and have the ability to use this knowledge to solve appropriate problems.
- 2. Understand the biologic principles which govern changes in cells and tissues as a response to abnormal stimuli, and the functional consequences and clinical significance of morphologic changes.
- 3. Understand how these changes alter during the course of the medical and surgical therapy and the differential diagnosis.
- Describe various specific changes which occur in specialized organs due to harmful pathogens and other agents.
- 5. Recognize disease at the gross, microscopic, and ultrastructural levels.
- 6. Understand the various pathological, molecular, and immunologic techniques used to reach the diagnosis.
- Understand the dynamics of disease, and be aware of the natural course of specific disease states and the result of intervention by a physician.
- 8. Interpret the various pathology reports of various branches.
- Understand how pathology as a medical specialty relates and contributes to clinical medicine.

#### MPHM 0910 Pharmacology and Therapeutics (7 credits)

This course concentrates on how chemical agents (drugs) regulate or modify physiological functions of the body, demonstrating how interactions of drugs with living organisms contribute to diagnosis, prevention, treatment, or cure of diseases. Biologic responses, physiological alterations, and correction of disorder or disease are discussed for each drug class, highlighting receptor interaction, which defines the agent's boundaries of efficacy. Because pharmacology and therapeutics is an integrated science, a strong attempt is made to maintain this integrated approach in lectures, tutorials, and case studies. Major emphasis is placed on principles of pharmacogenetics (pharmacodynamics, pharmacokinetics, adverse drug reactions, teratogenicity, etc.), as well as therapeutics of common drugs used in infectious disease, malignant diseases, and endocrine disorders. (Prerequisites: All semester 1 and 2 courses, Microbiology, Behavioral Science, and completion or co-enrollment in Pathology I)

#### **OBJECTIVES**

- Understand the fundamental principles of drug-receptor interactions and identify how drugs alter cellular function through the study of pharmacodynamics.
- 2. Determine how the body handles drugs through pharmacokinetic processes such as absorption, distribution, metabolism, elimination, dose-response relationships, half-life, steady-state concentrations, and volume of distribution, and thereby, affect therapeutic effectiveness.
- 3. Identify how specific patient characteristics and genetics can affect the response to a particular class of drugs.
- 4. Discuss the rationale behind designing different dosing regimens of particular drugs in specific patient populations.
- 5. Evaluate the scientific basis underlying how two different drugs can interact within the body and can have undesirable effects either on drug concentrations or drug clinical effects.
- 6. Identify and name the major classes of clinically important drugs which include drugs affecting the autonomic nervous system, anesthetics and analgesics, drugs to treat diseases of the cardiovascular system, drugs affecting the pulmonary system, antibiotics, drugs used to treat psychiatric disorders, drugs of abuse and drugs used to treat addiction, drugs that affect the immune system, drugs that affect the endocrine system, dietary supplements and herbal medications, antiviral drugs, and chemotherapeutic drugs used in the treatment of cancer.
- 7. Provide specific examples, mechanisms of action, adverse effects, contraindications, and drug interactions for each drug or class of drugs.

#### **MICM 0930**

#### **Introduction to Clinical Medicine I (6 credits)**

This course is designed to introduce students to the basic skills they will need to function as effective clinicians. History-taking and physical examination skills are taught in practical classes using the latest technological media, including Laerdal patient simulators (adult, pediatric, and adolescent). The course addresses a range of clinical skills necessary for the future development as a physician, including clinical assessment and planning for the care of patients using library and computer search of evidence-based information for patient care. Didactics are blended with laboratory data, which includes interpreting radiology and other imaging techniques, as well as electrocardiography. This course introduces core medical information needed to enter the third and fourth years of clinical training. Critical emphasis is on the development of ethical standards and specialization, as well as education and licensing requirements in the various states. Class sizes are kept small to facilitate free discussion and pertinent technique demonstrations. (Prerequisites: All courses in semesters 1-3, and co-enrollment in or completion of Pathology II)

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- Obtain a complete and (where necessary) focused medical history.
   Students will learn the skills for proficiently conducting a medical interview with a patient and/or informant, focusing on the essential components of history-taking.
- Perform a head-to-toe physical examination. Students will develop skills for examining the various systems using checklists and skill sheets as guides.
- Synthesize findings from the physical exam and history in developing a diagnosis and/or differential diagnosis with possible explanations and ways to rule in and rule out certain illnesses or disease processes.
- 4. Recommend or suggest specific lab tests or studies, such as blood/body fluid or radiological investigations, to confirm certain conditions responsible for a patient's illness.
- Adequately document all the details of the case (considering the above four points) and submit medical "H&P" reports and SOAP notes for evaluation.
- Exhibit professionalism. The student is expected to practice professionalism at all times while dealing with patients, their relatives, colleagues, and teachers.
- $7. \ \mbox{Improve communication skills}$  by participating in the above activities.
- 8. Enhance learning through teamwork and small group-based activities.
- 9. Facilitate learning through constructive feedback from faculty and peers.
- Acquire the basic skills for oral presentations of "H&P" and SOAP notes.

PLEASE NOTE: Students enrolled in this program are required to complete the courses in the order listed above. Any student wishing to enroll in a course out of sequence, or without the necessary prerequisites, must formally submit a request in writing, typically by email, to the Basic Science Dean by noon local time on the Wednesday prior to the start of the semester. The student must include his or her correct email address in this request. Any requests submitted after the deadline will not be considered. All students in the process of review are responsible for attending all courses originally scheduled for that student until they are officially told otherwise in writing or by email by the Basic Science Dean. Any class absences approved during this time period will be on the student's class record and cannot be used as justification for not continuing with the course.

### **Extended Basic Sciences Program**

The Extended Basic Science (EBS) Program is for entering students who wish to spread the course load of the first four semesters of the M.D. program over a five-semester period. Students accepted into the University may opt for this program up until a week after the first block exam in either their first or second semester.

The admissions committee has determined that some of those admitted will be accepted directly into the EBS program. These decisions are based upon a variety of criteria that may include overall GPA, pre-med GPA, MCAT score, passage of time between completing the basic sciences and entering into medical school, number of advanced science courses completed at the undergraduate level, and even language issues for those who speak English as a second language, or some combination of these factors.

Whether the student has voluntarily chosen the EBS Program, or the student was placed into EBS by the admissions committee, the goal of the program is to reduce the student's course load in order to ensure he or she performs well and masters the information. Students that have entered this program have traditionally excelled both academically and professionally.

Courses are taken along with students in the accelerated four-semester program to ensure that the EBS students are part of the "mainstream." As an incentive for EBS participants, the University has prorated the tuition so that the overall cost of tuition for the five-semester EBS Program is the same as the four-semester program. The only additional costs to students attending the EBS are time (an additional semester and cost of living on the island) and semester fees.

For full course descriptions, learning objectives, and prerequisites, please turn to the Basic Sciences section on page 5.

#### **EBS Semester 1**

| COURSE                          | CREDITS    |
|---------------------------------|------------|
| Gross and Developmental Anatomy | 11 Credits |
| Medical Cell Biology            | 6 Credits  |
| Physical Diagnosis              | 2 Credits  |
| Evidence Based Medicine         | 1 Credit   |
| TOTAL                           | 20 Credits |

#### **EBS Semester 2**

| COURSE       | CREDITS    |
|--------------|------------|
| Biochemistry | 7 Credits  |
| Immunology   | 2 Credits  |
| Histology    | 5 Credits  |
| Genetics     | 3 Credits  |
| TOTAL        | 17 Credits |

#### **EBS Semester 3**

| COURSE                         | CREDITS    |
|--------------------------------|------------|
| Microbiology                   | 5 Credits  |
| Physiology                     | 10 Credits |
| Biostatistics and Epidemiology | 2 Credits  |
| TOTAL                          | 17 Credits |

#### **EBS Semester 4**

| COURSE                                   | CREDITS    |
|--|------------|
| Neuroscience/Neuroanatomy                | 7 Credits  |
| Clinical Skills (Neurology & Behavioral) | 1 Credit   |
| Pathology I                              | 9 Credits  |
| Behavioral Science and Medical Ethics    | 6 Credits  |
| TOTAL                                    | 23 Credits |

#### **EBS Semester 5**

| COURSE                              | CREDITS    |
|-------------------------------------|------------|
| Pathology II                        | 12 Credits |
| Pharmacology and Therapeutics       | 7 Credits  |
| Introduction to Clinical Medicine I | 6 Credits  |
| TOTAL                               | 25 Credits |

#### Please note the following:

Those admitted to the EBS program, or opting into the program, will not be permitted to accelerate into the four-semester Basic Science Program at a later date.

- Prior to matriculation, students who choose to decelerate from the standard Basic Science Program to EBS must notify the office of admissions.
- Those who begin the four-semester program may opt into the EBS program following the completion of the first block examination either in the first or second semester, if the student's test results suggest that more time would be advantageous for successful completion of the basic sciences.
- With a reduced load, EBS students have been able to excel academically.
   Currently, the University has an attrition rate of four percent. This, in part, is directly related to the EBS program.
- Since the EBS tuition is lower than the standard tuition per semester, scholarships and loan awards will be adjusted accordingly.

# Clinical Science Program (Semesters 5–10)

The Clinical Science Program is designed to give students a broad spectrum of medical practice, training in clinical skills, and patient contact. The program consists of a fifth semester at our Maine campus, as well as core and elective rotations completed at U.S. and Canadian teaching hospitals affiliated with the University of Medicine and Health Sciences.

### Fifth Semester, Portland, Maine Campus

UMHS students complete their fifth semester studies at our campus in Portland, Maine. The fifth semester consists of the following required courses: Introduction to Clinical Medicine II and Biological Basis of Clinical Medicine. The UMHS facilities in Portland include the latest in simulation and technology resources. Students regularly participate in virtual clinics utilizing human simulators. Recently, the facilities have been expanded to include a learning resource center and additional examination rooms.

# Experienced Maine Medical Doctors Teaching in Real Clinical Settings

All student clinical experiences are supervised by a team of experienced Maine physicians, many of whom have decades of both medical practice and teaching experience. Students are assigned to work alongside physicians in actual patient care settings at several hospitals, clinics, and office health centers in and around Portland. The opportunity to work beside renowned Maine physicians is designed to build a student's clinical capabilities, increase his or her confidence, and enhance his or her performance on United States Medical Licensing Examinations (USMLE).

| COURSE                                | CREDITS    |
|---------------------------------------|------------|
| Introduction to Clinical Medicine II  | 7 Credits  |
| Biological Basis of Clinical Medicine | 4 Credits  |
| TOTAL                                 | 11 Credits |

#### Fifth Semester Curriculum

#### **MICM 1010**

#### **Introduction to Clinical Medicine II (7 credits)**

Introduction to Clinical Medicine II is a course designed to introduce students to the practice of medicine. The knowledge gained in the Basic Sciences will be integrated with the "art" of medicine. Students will sharpen their skills in history-taking and physical diagnosis and learn how to formulate a diagnosis and appropriate treatment plans. Patient communication and professionalism will be stressed throughout the course. The learning experience will include classroom lectures and small group sessions emphasizing clinical presentation, diagnostic work up, differential diagnoses, treatment plans, and case scenarios. Patient experiences will take place in both a virtual clinic setting and in preceptor offices with a practicing medical provider. Each week, students will spend time in the Clinical Skills Lab for further "hands-on" experiences. The above will be supplemented with additional special lectures on topics including ethics, EKG, pediatrics, geriatrics, addiction medicine, obstetrics, ophthalmology, behavior sciences, genetics, surgery, vaccines and travel medicine, palliative care, and dermatology.

The Clinical Preceptor Program exposes some students to direct patient care by having students work in offices, hospitals, or operating rooms with physicians, physician assistants, or nurse practitioners and exposes other students to indirect patient care by having students work with pathologists and laboratory technicians. The major emphasis in this section of the ICM Il course is on the content of clinical medicine and on the grasping of the meaning and awesome responsibility inherent in being a physician. Each student will keep a journal of the clinical situations and or pathology lab experiences encountered making sure to adhere to HIPAA rules.

The goal of ICM II is to prepare students to enter clinical rotations with a skill set that allows them to comfortably and successfully interact with patients. Students will be prepared to practice evidence-based medicine and achieve the six core competencies as outlined by the ACGME. Preparation for Step 1 of the USMLE will also be important during the course.

#### **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

- 1. Review the clinical presentations of medical illnesses while incorporating the fundamentals taught during Basic Sciences.
- 2. Further hone communication skills in patient interactions that were taught in ICM I.
- 3. Learn the importance of appropriate professional behavior and appearance and its significance for good patient outcomes.
- 4. Practice efficient, focused history-taking.
- 5. Practice efficient, focused physical exam skills.
- Learn to develop differential diagnoses based on symptoms and signs gathered from the focused history-taking and physical exam.
- 7. Learn the use of laboratory and radiologic investigations by balancing clinical benefit with costs and harms.
- 8. Learn cost-effective use of resources in the treatment of patients.
- 9. Develop a plan of care integrating evidence-based, guideline-driven treatment plans.
- 10. Learn to deliver efficient and concise patient presentations.
- 11. Document the office visit using a focused SOAP note format.
- 12. Practice commonly used medical procedures in a clinical lab setting.

#### MICM 1020

#### **Biological Basis of Clinical Medicine (4 credits)**

This clinical course is designed to fully integrate the knowledge acquired in the various basic medical sciences and pre-clinical science courses completed during the first four semesters of study in St. Kitts into a useful body of information that can be utilized to prepare the student to sit for licensure examinations (USMLE Step I). This clinical course utilizes a variety of visiting professors and faculty recruited primarily from U.S. medical schools. This is a full 15 review course.

### Clinical Rotations (Semesters 6-10)

After passing Step 1 of the USMLE, students will be placed at our affiliated teaching hospitals throughout the United States for their core clinical rotations. This occurs under the guidance of clinical faculty and under the supervision of the Dean of Clinical Sciences.

#### **Clinical Objectives**

The clinical years of the UMHS curriculum aim to prepare students who have mastered the Basic Sciences into students who can deal with patients and their problems in a hospital or outpatient milieu. The Maine Fifth Semester program begins this process. Numerous new clinical skills and considerable medical knowledge must be added to that which the student has previously acquired during semesters one through four. Beginning in the fifth semester and through years three and four, the six Core Competencies will be stressed as students acquire both diagnostic and therapeutic skills. The Core Competencies are:

- Patient Care
- · Medical Knowledge
- Practice-based Learning and Improvement
- · System-based Practice
- Professionalism
- Interpersonal Skills and Communication

Medical knowledge is of two types—factual and conceptual. The vast amount of knowledge required and the ever-accelerating rate of discovery reinforces the notion that the practicing physician must forever be a student of medicine and a lifelong learner. This provides a framework on which to arrange rapidly changing and increasingly detailed medical information.

UMHS is committed to a competency-based curriculum. Students will be graded and receive pertinent feedback during each core rotation, which includes:

- Self-assessment of strengths and weaknesses
- Analysis
- Identification of problems

### 78-Week Clinical Program

These clinical clerkships include 48 weeks of mandatory clinical rotations, as well as 30 weeks of elective clinical rotations. The core rotations represent the primary areas of medical practice, and the elective rotations provide students with an understanding of the various specialties in medicine.

| COURSE                                | CREDITS  |
|---------------------------------------|----------|
| Internal Medicine (MEDC 1100)         | 12 Weeks |
| Surgery (SURC 1200)                   | 12 Weeks |
| Pediatrics (PEDC 1400)                | 6 Weeks  |
| Obstetrics and Gynecology (OBGC 1300) | 6 Weeks  |
| Psychiatry (PSYC 1500)                | 6 Weeks  |
| Family Medicine (FMPC 1600)           | 6 Weeks  |
| Electives                             | 30 Weeks |
| TOTAL                                 | 78 Weeks |

### Clinical Curriculum (Semesters 6-10)

#### MEDC 1100 Internal Medicine (12 weeks)

Students build on skills acquired in physical diagnosis to include the completion of a thorough history and physical examination of primarily adult patients. Students participate in general Internal Medicine areas, gaining exposure to the diagnostic and treatment process as it unfolds.

Students develop competence in evaluating broad clinical problems and patient management skills. Hands-on patient experience is supplemented by tutorials and didactic sessions. Lecture topics include the management of commonly encountered disease processes, as well as an introduction to the use of diagnostic procedures.

### INTERNAL MEDICINE CORE EDUCATIONAL OBJECTIVES

#### **Patient Care:**

- Take a comprehensive history and perform a complete physical exam.
- Formulate a differential diagnosis and therapeutic plan, employing concern for risks, benefits, and costs.
- Document proficiently and timely.
- Analyze and document additional clinical information, lab tests, and changes in patients' clinical status.
- Demonstrate knowledge of the indications for, and the ability to interpret, standard diagnostic tests (e.g., CBC, chemistries LFTs, chest x-rays, urinalysis, EKGs).
- Demonstrate proficiency in basic procedures, such as venipuncture, insertion of intravenous lines, urinary bladder catheterization, etc.

#### Medical Knowledge:

- Demonstrate knowledge of the principal syndromes and illnesses in Internal Medicine, their pathophysiologies, and the various diagnostic and therapeutic options.
- · Ask questions—fill in the gaps.

#### **Interpersonal Communication Skills:**

- Demonstrate facility in communication with patients, families, and other caregivers in a culturally competent manner.
- Demonstrate comfort in dealing with people of varying racial, cultural, and religious backgrounds.

#### **Practice-based Learning and Improvement:**

- Demonstrate a regimen of independent learning through the reading of suggested basic texts, and research via the internet and through other electronic resources (e.g., UpToDate, MKSAP for students).
- Demonstrate a commitment to quality, patient safety, and self-directed improvement.

#### Professionalism:

- Demonstrate a commitment to treating everyone—patients, families, and other caregivers—with respect.
- Participate fully in the patient care team and fulfill all responsibilities in a timely fashion.
- · Maintain a professional appearance and demeanor.
- · Volunteer for needed care if patient care is understaffed.

#### **System-based Practice:**

- Demonstrate facility in working in concert with other caregivers, nutritionists, and social workers or discharge planners to obtain optimal, seamless multidisciplinary care for patients, both during the hospitalization and after discharge.
- Demonstrate knowledge of the indications for various levels of care post-discharge (e.g., long-term rehabilitation, long-term skilled nursing facility care, hospice, home care, etc.)
- Demonstrate a knowledge of, and concern for, advance directives, informed consent, patient confidentiality (HIPAA), and palliative and end-of-life issues.

#### SURC 1200 Surgery (12 weeks)

Students are introduced to disease processes which require various levels of surgical intervention. Students develop skills needed by the general physician, as well as those unique to surgery. Students further develop abilities in data synthesis and problem-solving, and become oriented to the clinical setting related to surgery. Ideally, students follow the patient from admission through discharge. Students are expected to participate in all aspects of patient care: assisting in the operating room, emergency room, and acute care units. Opportunities will be provided for direct practice of simple procedures such as suturing, debridement, and wound care. Students will be expected to observe and assist during various procedures in the operating room and participate in follow-up and treatment of the post-surgical patient, as well as in ambulatory practice settings.

### SURGERY CORE EDUCATIONAL OBJECTIVES Patient Care:

- Students will be required to record all procedures in log books and observe during the surgical rotation.
  - · Perform under supervision (as in fifth semester)
  - · Arterial puncture for blood gas analysis and interpret results
  - · Insert Foley catheter in both male and female patients
  - · Placement of a nasogastric tube
  - Wound dressing changes
  - · Placement and removal of sutures and staples
  - · Endotracheal intubation
  - · Observation (if available)
- Placement of thoracostomy tube and management of underwater seal drain.
  - · Paracentesis, thoracentesis
  - · Spinal and epidural anesthesia
  - · Resuscitation of a patient in shock
  - · Endoscopic procedures
- Demonstrate the ability to do a proper, detailed, complete physical exam.
- Demonstrate the ability to identify common surface anatomical landmarks.
- · Demonstrate skill specific to the following areas:
  - · Outpatient clinics
  - · Emergency department (E.D.)
  - · Operating Room (O.R.)

#### Interpersonal and Communication Skills:

- Identify the importance and details of obtaining informed consent for operations/procedures.
- Observe, when possible, the manner in which attending physicians/ preceptors have difficult discussions with patients and family regarding complications of operations, need for reoperations, futility of care, etc.
- Identify in a proactive manner whenever cultural issues affect surgical practice, as in use of blood transfusions when treating Jehovah's Witnesses.
- Identify the importance of communication in multidisciplinary care of surgical patients in an environment of mutual respect.

#### **Practice-based Learning:**

- Evidence-based decisions and discussions should always precede surgical intervention (e.g., breast reconstructive surgery vs. mastectomy).
- Use appropriate online resources for up-to-date information, read relevant sources on each case.
- Refine problem-solving skills by seeking supervision in all cases, both pre-op and post-op.

#### Professionalism:

- Demonstrate proper behavior in and outside the operating room. At all
  times, function as a part of the surgical team to which assigned, being
  responsible to be punctual, involved, and in the appropriate arena, which
  may include the ER, OR, ICU, and floors at various times.
- Realize the limits of one's position on the team so as not to engage
  patients and family in discussions about their care beyond the limits of
  that position.
- Do not discuss cases in public areas, like hospital elevators and hallways.

#### System-based Learning:

- Be aware of the cost/benefit ratio in the implementation of new technologies in the surgical arena (e.g., laparoscopic and robotic surgery, laser technologies).
- Recognize the importance of ancillary services in the continuum of care of surgical patients (e.g., visiting nurse programs, rehabilitation services, etc.)

#### PEDC 1400 Pediatrics (6 weeks)

Students receive a broad overview of general pediatrics. Experience is gained with inpatient and ambulatory pediatric care. Pediatric intakes and ward rounds are the basis of inpatient care, while ambulatory care experience is gained in general pediatric clinics through the evaluation of patients with common complaints and disorders. This clinical rotation introduces the student to the challenging treatment of infants, children, and adolescents. The diagnosis and treatment of common illnesses will be emphasized, but the student will have opportunities to learn about rarer congenital and acquired disorders.

### PEDIATRICS CORE EDUCATIONAL OBJECTIVES Patient Care:

- Perform a complete and age-appropriate pediatric history and physical examination, including developmental assessment from infancy to adolescence.
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- Develop and carry out a clinical assessment and plan.
- Counsel and educate patients and their families.
- Perform competently all medical and invasive procedures appropriate to level of training and supervision.
- Provide healthcare services aimed at preventing health problems or maintaining health.

#### Medical Knowledge:

- Obtain knowledge of disease pathophysiology, diagnosis, and etiology should be mastered.
- · Gain knowledge of disease management.
- Gain knowledge of prevention and health maintenance guidelines.
- Critically evaluate and use current medical information and scientific evidence for patient care.

#### **Interpersonal and Communication Skills:**

- Communicate effectively both orally and in writing, and demonstrate caring and respectful behaviors when interacting with patients and their families.
- Create and sustain a therapeutic and ethically sound relationship with patients and parents.
- Work effectively with others as a member or leader of a healthcare team.

#### Professionalism:

- Adhere to ethical principles and sensitivity to diversity.
- Demonstrate respect, compassion, integrity, and honesty.
- Demonstrate a responsiveness to the needs of patients and society that supersedes self-interest.
- Demonstrate accountability to patients, society, and the profession.
- Demonstrate a commitment to excellence and ongoing professional development.
- Demonstrate sensitivity and responsiveness to a diverse patient population.
- · Adhere to patient confidentiality.
- Strive to be culturally competent.

### OBGC 1300 Obstetrics and Gynecology (6 weeks)

Students are assigned to obstetrical and gynecological patients for evaluation and follow-up. Participation in normal deliveries is stressed. Students are expected to follow patients through completion of delivery or surgery. Ambulatory obstetrical and gynecological care is stressed and patient contact is supplemented with conferences and didactic teaching sessions. Observation and participation in a number of live births will be provided.

#### OB/GYN CORE EDUCATIONAL OBJECTIVES

#### **Patient Care:**

- Learn the art of a completed and relevant reproductive history, including ethical issues, as well as violence against women.
- Learn the indications for and interpretation of the common laboratory tests used in the specialty of obstetrics and gynecology.
- Observe and learn basic procedures, common to the specialty of obstetrics and gynecology.
- Actively participate in the care of at least one woman throughout the course of labor and delivery and follow-up.

#### Medical Knowledge:

- Understand mechanisms of diseases related to women's health including normal reproductive physiology and pathology.
- Understand the mechanisms of actions, toxicities, and proper use of major pharmacologic agents as they affect women and, in pregnancy, the fetus.

#### **Interpersonal and Communication Skills:**

 Learn the importance and techniques of educating and counseling patients and their families regarding reproductive health.

#### Professionalism:

Demonstrate highest levels of integrity and sensitivity to women's issues.

#### PSYC 1500 Psychiatry (6 weeks)

In a primarily institutional setting, the students learn about the major psychiatric illnesses such as schizophrenia, affective, and anxiety disorders. Students build upon classroom knowledge gained during the first and second years. Treatment of psychiatric patients in the inpatient setting comprises the majority of the rotation. The resources available for care of psychiatric patients are presented. Skill in the evaluation and diagnosis of the psychiatric patients is developed through direct patient interviews and didactic sessions.

### PSYCHIATRY CORE EDUCATIONAL OBJECTIVES Patient Care:

- Demonstrate the ability to obtain a complete psychiatric history, perform a complete mental status exam, and recognize significant physical findings.
- Identify the major psychiatric disorders, e.g., mood and anxiety disorders, psychoses, personality disorders, substance disorders, and disorders involving cognitive impairment (delirium, dementia).
- Acquire a basic fund of knowledge about these disorders.
- Be familiar with the major classes of psychotropic medications, including pretreatment work-up, indications and contraindications, charting and adequate maintenance dose ranges, common drug interactions, and common side effects.
- Assess and begin emergency management and referral of a patient with psychiatric symptoms.
- Develop a familiarity with basic psychotherapy concepts.
- Demonstrate professional behavior and open, honest communication with patients at all times.

#### Medical Knowledge:

- Demonstrate medical knowledge sufficient to express an understanding of different psychiatric symptoms, such as the recovery model vs. the medical model.
- Demonstrate a strong fund of knowledge of psychopathology and psychopathophysiology.
- Demonstrate a strong working knowledge of DSM-IV and the diagnostic criteria for major psychiatric disorders.
- Participate in developing comprehensive treatment plans.
- Understand the basics of psychopharmacologic and psychotherapeutic approaches.
- Develop decision-making skills for treatment options.

#### Interpersonal and Communication Skills:

- Conduct an interview in a manner that promotes information gathering and a therapeutic alliance.
- Develop a sense of comfort with disturbed patients and patients with chronic psychiatric illnesses, with an awareness of your reactions to these patients.
- · Demonstrate proficiency in presenting clinical cases.
- Identify how family relationships impact mental health and illness and provide appropriate support for the individual patient and their family.
- Demonstrate the use of both verbal and non-verbal communication skills in optimizing the care of patients and their families.

#### **Practice-based Learning and Improvement:**

- Identify issues of quality and safety as it relates to psychiatric patient care.
- Critically appraise the literature to identify the varied treatment options in the care of patients.
- Utilize patient preference and best available evidence in clinical decision-making.
- Appreciate the impact of physician experience.
- Discuss relevant research in the clinical setting.

#### Professionalism:

- Demonstrate moral and ethical qualities when interacting with patients, colleagues, and healthcare providers.
- Identify limitations in treating and caring for patients.
- Demonstrate the ability to react in an appropriate and empathetic manner in stressful situations.
- · Learn your personal biases and control them for the patient's welfare.

#### **System-based Practice:**

- · Recognize the significance of cost effective healthcare.
- Understand the variety of community resources available to psychiatric
  patients and how to assess and access different levels of care depending
  on the patients' needs.
- Utilize patient advocate systems, resources, and information to coordinate and improve care.
- Integrate healthcare systems to provide continuous and diverse comprehensive care of patients and populations.

#### FMPC 1600 Family Medicine (6 weeks)

Students work in both private office and clinic settings, as well as the hospital environment with family practitioners. Unlike other clerkships, this experience is not totally hospital-based. Each student is assigned to an office environment, with either a single practitioner or a group to experience how different it is to practice primarily in an outpatient setting.

Each student is assigned to patients as they enter the office. The student must take a history and do a physical examination, define a diagnostic and treatment plan, and then present it to a physician. If the patient requires hospitalization, the student will participate in the course in the hospital. If outpatient care is needed beyond the initial visit, the student will schedule and perform follow-up care.

### FAMILY MEDICINE CORE EDUCATIONAL OBJECTIVES Patient Care:

- Provide comprehensive and continuous care to individuals of all ages.
- Demonstrate the ability to integrate the best medical evidence in making diagnostic and treatment decisions for individual patients.
- Utilize creativity and flexibility when providing patient care for individuals of all ages, socioeconomic, and cultural backgrounds.
- Document the ability to record appropriate acute and chronic care of the patient in a problem-oriented format.
- Demonstrate the ability to obtain a comprehensive history, perform a physical exam, and develop a differential diagnosis when evaluating patients with acute and chronic medical problems.
- Demonstrate the ability to conduct a wellness visit for a patient of any age or gender.
- Order appropriate diagnostic tests which are cost effective, evidence based, and consistent with patient values and goals.

#### Medical Knowledge:

- Preventive medicine will be emphasized primarily in the outpatient setting.
- Demonstrate proficiency in the diagnosis and treatment of the clerkship topics, utilizing the six ACGME Core Competencies.
- Integrate information from the history and physical to develop a differential diagnosis and treatment plan, which is developed using evidence-based, patient-centered outcomes.
- Develop treatment plans for individuals of all ages and cultural backgrounds.

#### **Interpersonal and Communication Skills:**

- Demonstrate proficiency in presenting clinical cases in SOAP format.
- Demonstrate proficiency and sensitivity while interacting with colleagues, faculty physicians, nurses, staff, and patients.
- Identify how family relationships impact health and illness and provide appropriate support for the individual patient and their family.
- Demonstrate the use of both verbal and non-verbal communication skills in optimizing the care of patients and their families.

#### **Practice-based Learning and Improvement:**

- Identify the use of quality assurance as it relates to patient care.
- · Utilize practice guidelines to optimize patient care.
- Critically appraise literature to identify the varied treatment options in the care of patients.
- Utilize patient preference and best available evidence in clinical decision-making.
- Appreciate the impact of physician experience.
- · Discuss relevant research in the clinical setting.

#### Professionalism:

- Demonstrate moral and ethical qualities when interacting with patients, colleagues, and healthcare providers.
- Identify limitations in treating and curing patients.
- Demonstrate the ability to react in an appropriate and empathetic manner in stressful situations.
- Learn your personal biases and control them for the patient's welfare.
- Consistently approach your work and patients in a professional manner, consistent with other physicians and physicians in-training.

#### **System-based Practice:**

- Recognize the significance of cost-effective healthcare.
- Recognize the unequivocal value of primary care as an integral part of any healthcare system.
- Utilize patient advocate systems, resources, and information to coordinate and improve care.
- Recognize the importance of treating your patients within the context of their families and communities.
- Integrate healthcare systems to provide continuous and diverse comprehensive care of patients and populations.

#### Senior Electives (30 weeks)

Students can choose from dozens of electives focused on a variety of specialty medical fields. These electives serve to provide the necessary credits for graduation while increasing the student's exposure to a variety of specialties in the medical field.

### **Affiliated Hospitals**

UMHS has established affiliations with teaching hospitals throughout the United States and Canada, where our students complete their core rotations. We are continuing to expand our core clinical affiliations, and are in negotiations with additional teaching hospitals in a variety of states. The following list represents the hospitals where students can complete their core clinical requirements. Hundreds of additional hospitals throughout the United States are available for electives.

### **Affiliated Teaching Hospitals (Core Rotations)**

#### California:

San Bernardino Behavioral Health, San Bernardino

#### **Connecticut:**

Danbury Hospital, Danbury Griffin Hospital, Derby St. Mary's Hospital, Waterbury

#### Florida:

Larkin Community Hospital, South Miami Keralty Hospital, Miami Southern Winds Hospital, Hialeah

#### Georgia:

Georgia Regional Hospital, Decatur University Hospital, Augusta

#### Illinois:

Weiss Memorial Hospital, Chicago

#### Maryland:

Sinai Hospital of Baltimore, Baltimore

#### Michigan:

Ascension Providence Rochester Hospital, South Rochester
McLaren Oakland Hospital, Pontiac
McLaren Macomb Hospital, Mt. Clemens
Detroit Medical Center, Detroit
Detroit Medical Center Huron Valley-Sinai Hospital, Commerce Township

#### **New York:**

Montefiore New Rochelle Hospital, New Rochelle Stony Brook Southampton Hospital, Southampton

#### Oklahoma:

Griffin Memorial Hospital, Norman

#### **Puerto Rico:**

Ponce School of Medicine, Ponce Puerto Rico Children's Hospital, Bayamón San Juan City Hospital, San Juan

#### **Canadian Affiliations:**

Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

### **Course/Clerkship Numbering Protocol**

#### **Basic Sciences**

The Basic Sciences courses are numbered 600–999 to signify the first two years of graduate/professional coursework. Each course number is prefixed with a Course Discipline Code.

| COURSE             | COURSE DISCIPLINE CODE |
|--------------------|------------------------|
| ANATOMY            | MANT                   |
| PHYSIOLOGY         | MPHY                   |
| BIOCHEMISTRY       | MBIO                   |
| CLINICAL SCIENCE   | MICM                   |
| PATHOLOGY          | MPAT                   |
| NEUROSCIENCE       | MNEU                   |
| MICRO/IMMU         | MMCR                   |
| BEHAVIORAL SCIENCE | MBEH                   |
| PHARMACOLOGY       | MPHM                   |

#### **Clinical Sciences**

The Clinical Sciences Clerkships taken as third—and fourth-year students are numbered 1000 and above, with each required clerkship designated with a four-digit Clerkship Discipline Code prefix. The Clerkship Discipline Code also indicates if the rotation is a core, elective, sub-I or research rotation.

| 1600 |                          | 1400 |                     |
|------|--------------------------|------|---------------------|
| FMPC | Family Medicine Core     | PEDC | Pediatric Core      |
| FMPI | Family Medicine Sub-I    | PEDI | Pediatric Sub-I     |
| FMPE | Family Medicine Elective | PEDE | Pediatric Elective  |
| FMPR | Family Medicine Research | PEDR | Pediatric Research  |
| 1100 |                          | 1500 |                     |
| MEDC | Medicine Core            | PSYC | Psychiatry Core     |
| MEDI | Medicine Sub-I           | PSYI | Psychiatry Sub-I    |
| MEDE | Medicine Elective        | PSYE | Psychiatry Elective |
| MEDR | Medicine Research        | PSYR | Psychiatry Research |
| 1300 |                          | 1200 |                     |
| OBGC | ObGYN Core               | SURC | Surgery Core        |
| OBGI | ObGYN Sub-I              | SURI | Surgery Sub-I       |
| OBGE | ObGYN Elective           | SURE | Surgery Elective    |
| OBGR | ObGYN Research           | SURR | Surgery Research    |

### **Residency Match Program**

The National Resident Match Program (NRMP) is a national placement service that most programs and applicants participate in, as it greatly optimizes the chances of getting a residency position. Students apply to programs through The Electronic Residency Application Service (ERAS), and then must also participate in the NRMP in order to match with one of those programs. Students may begin their ERAS application in July and begin submitting them between September and each program's autumn or winter deadline.

In order to participate in the Match process, students must have successfully passed USMLE Step 1 and Step 2 CK as well as completed a significant portion of the clinical program. In addition to the USMLE requirements, students must also satisfy either Pathway 3 or 6, which were established as an alternative to Step 2 CS by ECFMG in 2021. After applying to the NRMP, students must apply to each residency program in which they are interested and participate in interviews. In February, students must submit a "rank order list" to the NRMP.

The rank order list is a list of the programs where students interviewed, ranked from most to least desirable. Simultaneously, all residency programs submit their rank order lists of the candidates they interviewed.

After the computerized matching process, results are released in March. If a student matches to a specific program, it is a binding contract. Students normally begin in their respective programs on or before July 1.

If a student fails to match or is not eligible to enter the NRMP, the student can still apply to residency programs to obtain a position "outside the match." Students who participated in NRMP but did not match will be sent a publication listing all unfilled residency positions.

# National Resident Matching Program (NRMP) and CaRMS

Like students from U.S. medical schools, UMHS students apply for residencies through the National Resident Matching Program (NRMP) in order to obtain a position, or "match," in the United States. Canadian UMHS students have the option of applying to the Canadian Residency Matching Service (CaRMS) alternatively, or in addition to, the U.S. NRMP program.

Students prepare and submit applications to ERAS in the summer and fall prior to their match year in order to interview with prospective programs between September and January.

In February, Canadian students submit "rank" lists of their preferred programs to the NRMP and CaRMS. Similarly, programs submit lists of their preferred applicants. Both the NRMP and CaRMS then apply an algorithm to determine a match based on those preferences. The results are released in March, prior to graduation.

#### Requirements for Beginning Residency

Both U.S. citizens and Canadian students seeking U.S. residency must pass the USMLE Step 1 and USMLE Step 2 CK & CS, the UMHS 78-week clinical curriculum, and present their diploma and certification from the Educational Commission for Foreign Medical Graduates (ECFMG) to their program. Beginning in 2021, graduates must go through ECFMG Pathways 3 or 6 as a substitute for the CS, which is no longer offered.

A certificate from the ECFMG ensures a foreign medical school and its students have achieved a comparable acumen to United States institutions and meet the standard expected by United States residency programs.

Canadian students are also required to pass the Medical Council of Canada Evaluating Examination (MCCEE) and the National Assessment Collaboration (NAC) examination in order to meet the requirements of most Canadian residency programs.

### **Match Results**

| Anesthesiology     | Detroit Med Ctr/WSU                                      | MI       |
|--------------------|--|----------|
| Anesthesiology     | Univ of Puerto Rico                                      | PR       |
| Emergency Medicine | Memorial Healthcare System                               | FL       |
| Emergency Medicine | McLaren Health Care Corp/Macomb                          | MI       |
| Emergency Medicine | McLaren Health Care Corp/Oakland                         | MI       |
| Emergency Medicine | McLaren Health Care Corp/Oakland                         | MI       |
| Emergency Medicine | Promedica Monroe Regional Hospital                       | MI       |
| Emergency Medicine | Hosp Episcopal San Lucas                                 | PR       |
| Emergency Medicine | Hosp Episcopal San Lucas                                 | PR       |
| Family Medicine    | UAMS Regional Centers/Batesville                         | AR       |
| Family Medicine    | UAMS Regional Centers/Fayetteville                       | AR       |
| Family Medicine    | UAMS Regional Centers/Fort Smith                         | AR       |
| Family Medicine    | St Francis Hospital                                      | DE       |
| Family Medicine    | Lakeside Med Ctr   | FL       |
| Family Medicine    | Larkin Comm Hosp Palm Springs Campus                     | FL       |
| Family Medicine    | U Central FL/HCA Healthcare GME/Gainesville              | FL       |
| Family Medicine    | Houston Healthcare                                       | GA       |
| Family Medicine    | Northeast Georgia Med Ctr                                | GA       |
| Family Medicine    | Piedmont Columbus Regional                               | GA GA    |
| Family Medicine    | WellStar Kennestone Reg Med Ctr                          | GA       |
| Family Medicine    | •  | L GA     |
| Family Medicine    | Cook County Health and Hosps Sys  Rush Medical-Esperanza |          |
| •                  | ·  | <u>L</u> |
| Family Medicine    | SIU Decatur  | <u>L</u> |
| Family Medicine    | SIU SOM & Affil Hosps                                    | <u>L</u> |
| Family Medicine    | SIU SOM & Affil Hosps/Alton                              | IL<br>IN |
| Family Medicine    | Indiana Regional Med Ctr  Central Maine Med Ctr          |          |
| Family Medicine    |  | ME       |
| Family Medicine    | Central Maine Med Ctr                                    | ME       |
| Family Medicine    | Ascension Genesys Hospital                               | MI       |
| Family Medicine    | Ascension Genesys Hospital                               | MI       |
| Family Medicine    | McLaren Health Care Corp/Oakland                         | MI       |
| Family Medicine    | Promedica Monroe Reg Hosp                                | MI       |
| Family Medicine    | U Minnesota Med School/N Memorial                        | MN       |
| Family Medicine    | East Central Mississippi Health                          | MS       |
| Family Medicine    | Mississippi Med Ed Res Consortium                        | MS       |
| Family Medicine    | Cone Health  | NC NO    |
| Family Medicine    | Southern Regional Health Education Center                | NC       |
| Family Medicine    | CMSRU/Cooper University Hospital                         | NJ       |
| Family Medicine    | HMH-Palisades Med Ctr                                    | NJ       |
| Family Medicine    | U Nevada Reno SOM  | NV       |
| Family Medicine    | St. Elizabeth Youngstown Hosp                            | ОН       |
| Family Medicine    | Summa Health/NEOMED/Barberton Campus                     | OH       |
| Family Medicine    | Albert Einstein Healthcare Network                       | PA       |
| Family Medicine    | Penn State Hershey Med Ctr/St Joseph                     | PA       |
| Family Medicine    | Wright Center for GME                                    | PA       |
| Family Medicine    | Bella Vista Hospital                                     | PR       |
| Family Medicine    | Univ of Puerto Rico                                      | PR       |
| Family Medicine    | McLeod Reg Med Ctr                                       | SC       |
| Family Medicine    | Meharry/Metro General Hosp                               | TN       |
| Family Medicine    | Swedish Health Services                                  | WA       |

| Family Medicine       | Med Coll Wisconsin Affil Hosps/All Saints            | WI |
|-----------------------|--|----|
| Family Medicine       | Med Coll Wisconsin Affil Hosps/Froedtert Menom Falls | WI |
| Family Medicine       | Mercy Health System                                  | WI |
| Family Medicine       | Mercy Health System                                  | WI |
| Family Medicine       | WiNC GME Consortium/MCW-Prevea-Green Bay             | WI |
| Family Medicine       | Univ of Wyoming-Casper                               | WY |
| Internal Medicine     | Baptist Health                                       | AR |
| Internal Medicine     | Unity Health   | AR |
| Internal Medicine     | St Marys Hospital                                    | CT |
| Internal Medicine     | St Marys Hospital                                    | СТ |
| Internal Medicine     | Broward Health Med Ctr/North Program                 | FL |
| Internal Medicine     | Florida State University COM/Sarasota                | FL |
| Internal Medicine     | HCA Healthcare East FL Division GME/Kendall          | FL |
| Internal Medicine     | HCA Healthcare/JFK Med Center-Umiami                 | FL |
| Internal Medicine     | AU-UGA Medical Partnership                           | GA |
| Internal Medicine     | WellStar Kennestone Reg Med Ctr                      | GA |
| Internal Medicine     | Advocate Health Care/AIMMC                           | L  |
| Internal Medicine     | Advocate Health Care/ALGH                            | IL |
| Internal Medicine     | RFUMS/Chicago Medical School                         | IL |
| Internal Medicine     | Sinai Hospital of Baltimore                          | MD |
| Internal Medicine     | TidalHealth  | MD |
| Internal Medicine     | Ascension Genesys Hospital                           | MI |
| Internal Medicine     | Detroit Med Ctr/WSU/HVSH                             | MI |
| Internal Medicine     | Detroit Med Ctr/WSU/HVSH                             | MI |
| Internal Medicine     | McLaren Health Care Corp/Macomb                      | MI |
| Internal Medicine     | McLaren Health Care Corp/Oakland                     | MI |
| Internal Medicine     | McLaren Health Care Corp/Oakland                     | MI |
| Internal Medicine     | Wayne State University SOM                           | MI |
| Internal Medicine     | Wayne State University SOM                           | MI |
| Internal Medicine     | Wayne State University SOM                           | MI |
| Internal Medicine     | Baptist Mem Hosp Golden Triangle                     | MS |
| Internal Medicine     | Baptist Mem Hosp Golden Triangle                     | MS |
| Internal Medicine     | Rutgers-Jersey City Med Ctr                          | NJ |
| Internal Medicine     | U Nevada Reno SOM                                    | NV |
| Internal Medicine     | OhioHealth-Riverside Methodist                       | ОН |
| Internal Medicine     | Univ Hosps Community Consortium/Regionals            | ОН |
| Internal Medicine     | St Lukes Hosp-Anderson                               | PA |
| Internal Medicine     | St Mary Med Ctr-Langhorne                            | PA |
| Internal Medicine     | Tower Health/Reading Hospital                        | PA |
| Internal Medicine     | Damas Hospital                                       | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                             | PR |
| Internal Medicine     | Hospital de la Concepcion                            | PR |
| Internal Medicine     | San Juan City Hospital                               | PR |
| Internal Medicine     | San Juan VA Med Ctr                                  | PR |
| Internal Medicine     | Univ of Puerto Rico                                  | PR |
| Internal Medicine     | Universidad Central Del Caribe                       | PR |
| Internal Medicine     | Elson S Floyd COM WSU                                | WA |
| Internal Medicine     | Skagit Regional Health                               | WA |
| Neurology             | Univ of Puerto Rico                                  | PR |
| Obstetrics/Gynecology | McLaren Health Care Corp/Macomb                      | MI |
| Obstetrics/Gynecology | Virtua   | NJ |
| Obstetrics/Gynecology | Hosp Episcopal San Lucas                             | PR |
| Obstetrics/Gynecology | San Juan City Hospital                               | PR |
| Orthopaedic Surgery   | Wake Forest Baptist Med Ctr                          | NC |
| Pathology             | Virginia Commonwealth U HIth Sys                     | VA |
| Pediatrics            | AdventHealth Florida                                 | FL |

| Pediatrics           | AdventHealth Florida                      | FL |
|----------------------|---|----|
| Pediatrics           | St Louis Univ SOM                         | MO |
| Pediatrics           | CMSRU/Cooper University Hospital          | NJ |
| Pediatrics           | Hosp Episcopal San Lucas                  | PR |
| Pediatrics           | Puerto Rico Women and Children's Hospital | PR |
| Pediatrics           | Puerto Rico Women and Children's Hospital | PR |
| Pediatrics           | Puerto Rico Women and Children's Hospital | PR |
| Pediatrics           | Puerto Rico Women and Children's Hospital | PR |
| Pediatrics           | San Juan City Hospital                    | PR |
| Pediatrics           | San Juan City Hospital                    | PR |
| Pediatrics           | San Juan City Hospital                    | PR |
| Pediatrics           | Univ of Puerto Rico                       | PR |
| Pediatrics           | Univ of Puerto Rico                       | PR |
| Pediatrics           | Texas Tech U Affil-El Paso                | TX |
| Psychiatry           | Arrowhead Reg Med Ctr                     | CA |
| Psychiatry           | Authority Health GME                      | MI |
| Psychiatry           | Griffin Memorial Hospital                 | OK |
| Psychiatry           | Ponce Health Sciences Univ SOM            | PR |
| Psychiatry           | Univ of Puerto Rico                       | PR |
| Psychiatry           | East Tennessee St Univ                    | TN |
| Psychiatry           | Meharry/Metro General Hosp                | TN |
| Radiology/Diagnostic | Univ of Puerto Rico                       | PR |
| Transitional         | Henry Ford Allegiance Health              | MI |
| Transitional         | Damas Hospital                            | PR |
| Transitional         | Hosp Episcopal San Lucas                  | PR |
| Transitional         | Hosp Episcopal San Lucas                  | PR |

### Match Results 2021

| Anesthesiology     | Rush University Med Ctr         | IL |
|--------------------|---------------------------------|----|
| Emergency Medicine | Promedica Monroe Reg Hosp       | MI |
| Emergency Medicine | Hosp Episcopal San Lucas        | PR |
| Family Medicine    | UAB Selma                       | AL |
| Family Medicine    | UAB Selma                       | AL |
| Family Medicine    | UAB Selma                       | AL |
| Family Medicine    | UAMS Regional Centers           | AR |
| Family Medicine    | Midwestern University OPTI      | AZ |
| Family Medicine    | Yuma Regional Med Ctr           | AZ |
| Family Medicine    | Yuma Regional Med Ctr           | AZ |
| Family Medicine    | Yuma Regional Med Ctr           | AZ |
| Family Medicine    | Howard Univ Hospital            | DC |
| Family Medicine    | AdventHealth Florida            | FL |
| Family Medicine    | Keralty Hospital                | FL |
| Family Medicine    | Hamilton Med Ctr                | GA |
| Family Medicine    | Houston Healthcare              | GA |
| Family Medicine    | Medical College of Georgia      | GA |
| Family Medicine    | Northeast Georgia Med Ctr       | GA |
| Family Medicine    | Piedmont Columbus Regional      | GA |
| Family Medicine    | Piedmont Columbus Regional      | GA |
| Family Medicine    | WellStar Kennestone Reg Med Ctr | GA |

| Family Medicine   | Hilo Medical Center                  | HI |
|-------------------|--------------------------------------|----|
| Family Medicine   | Mercy Med Ctr-Des Moines             | IA |
| Family Medicine   | Mercy One North Iowa Med Ctr         | IA |
| Family Medicine   | Amita Sts Mary and Elizabeth Med Ctr | IL |
| Family Medicine   | SIU SOM & Affil Hospitals            | IL |
| Family Medicine   | LSU SOM-New Orleans                  | LA |
| Family Medicine   | LSU SOM-New Orleans                  | LA |
| Family Medicine   | Ascension Genesys Hospital           | MI |
| Family Medicine   | Ascension St John Hospital           | MI |
| Family Medicine   | Henry Ford Macomb Hospital           | MI |
| Family Medicine   | McLaren Health Care Corp             | MI |
| Family Medicine   | McLaren Health Care Corp             | MI |
| Family Medicine   | Mercy Health Grand Rapids            | MI |
| Family Medicine   | East Central Mississippi Health      | MS |
| Family Medicine   | Southern Regional AHEC               | NC |
| Family Medicine   | Vidant Med Ctr/East Carolina Univ    | NC |
| Family Medicine   | U North Dakota SOM                   | ND |
| Family Medicine   | Virtua                               | NJ |
| Family Medicine   | Memorial Health System               | ОН |
| Family Medicine   | Excela Health Latrobe Hospital       | PA |
| Family Medicine   | St Lukes Hospital-Anderson           | PA |
| Family Medicine   | Wright Center for GME                | PA |
| Family Medicine   | Manati Medical Center                | PR |
| Family Medicine   | Univ of Puerto Rico                  | PR |
| Family Medicine   | Grand Strand Reg Med Ctr             | SC |
| Family Medicine   | McLeod Reg Med Ctr                   | SC |
| Family Medicine   | Prisma Health-U of SC SOM Greenville | SC |
| Family Medicine   | Baptist Mem Med Education            | TN |
| Family Medicine   | U Tennessee Health Sci Ctr-Memphis   | TN |
| Family Medicine   | U Tennessee Health Sci Ctr-Memphis   | TN |
| Family Medicine   | U Tennessee Health Sci Ctr-Memphis   | TN |
| Family Medicine   | Mercy Health System                  | WI |
| Family Medicine   | Univ of Wyoming                      | WY |
| Internal Medicine | St Bernards Med Ctr-AR               | AR |
| Internal Medicine | Florida State University COM         | FL |
| Internal Medicine | Keralty Hospital                     | FL |
| Internal Medicine | AU-UGA Medical Partnership           | GA |
| Internal Medicine | AU-UGA Medical Partnership           | GA |
| Internal Medicine | Medical College of Georgia           | GA |
| Internal Medicine | Carle Foundation Hospital            | IL |
| Internal Medicine | MedStar Union Memorial Hospital      | MD |
| Internal Medicine | Sinai Hospital of Baltimore          | MD |
| Internal Medicine | Ascension Genesys Hospital           | MI |
| Internal Medicine | Beaumont Health                      | MI |
| Internal Medicine | Central Michigan University COM      | MI |
| Internal Medicine | Detroit Med Ctr/WSU                  | MI |
| Internal Medicine | Detroit Med Ctr/WSU                  | MI |
| Internal Medicine | Detroit Med Ctr/WSU                  | MI |
| Internal Medicine | Garden City Hospital                 | MI |
| Internal Medicine | Henry Ford Allegiance Health         | MI |
| Internal Medicine | McLaren Health Care Corp             | MI |
| Internal Medicine | McLaren Health Care Corp             | MI |
| Internal Medicine | McLaren Health Care Corp             | MI |
| Internal Medicine | McLaren Health Care Corp             | MI |
| Internal Medicine | McLaren Health Care Corp             | MI |
| Internal Medicine | Wayne State University SOM           | MI |
|                   |                                      |    |

| Internal Medicine     | Baptist Mem Hosp Golden Triangle          | MS |
|-----------------------|---|----|
| Internal Medicine     | Campbell University                       | NC |
| Internal Medicine     | HMH-Palisades Med Ctr                     | NJ |
| Internal Medicine     | Rutgers-Jersey City Med Ctr               | NJ |
| Internal Medicine     | St. Clare's Hospital                      | NJ |
| Internal Medicine     | Canton Med Ed Fdn/NEOMED                  | OH |
| Internal Medicine     | Canton Med Ed Fdn/NEOMED                  | OH |
| Internal Medicine     | Wright State Univ Boonshoft SOM           | OH |
| Internal Medicine     | St Lukes Hospital-Anderson                | PA |
| Internal Medicine     | St Lukes Hospital-Bethlehem               | PA |
| Internal Medicine     | Damas Hospital                            | PR |
| Internal Medicine     | Damas Hospital                            | PR |
| Internal Medicine     | Damas Hospital                            | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                  | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                  | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                  | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                  | PR |
| Internal Medicine     | Hosp Episcopal San Lucas                  | PR |
| Internal Medicine     | Hospital El Mastro                        | PR |
| Internal Medicine     | San Juan City Hospital                    | PR |
| Internal Medicine     | San Juan City Hospital                    | PR |
| Internal Medicine     | Univ of Puerto Rico                       | PR |
| Internal Medicine     | Univ of Puerto Rico                       | PR |
| Internal Medicine     | Univ of Puerto Rico                       | PR |
|                       |   |    |
| Internal Medicine     | Norton Community Hospital                 | VA |
| Internal Medicine     | Skagit Regional Health                    | WA |
| Internal Medicine     | West Virginia University SOM              | WV |
| Neurology             | Mercy Health Grand Rapids                 | M  |
| Neurology             | Univ of Puerto Rico                       | PR |
| Neurology             | West Virginia University SOM              | WV |
| Obstetrics/Gynecology | Hosp Episcopal San Lucas                  | PR |
| Pediatrics            | U South Alabama Hospitals                 | AL |
| Pediatrics            | U South Alabama Hospitals                 | AL |
| Pediatrics            | U South Alabama Hospitals                 | AL |
| Pediatrics            | U Florida COM                             | FL |
| Pediatrics            | Hosp Episcopal San Lucas                  | PR |
| Pediatrics            | Hosp Episcopal San Lucas                  | PR |
| Pediatrics            | Hosp Episcopal San Lucas                  | PR |
| Pediatrics            | Puerto Rico Woman and Children's Hospital | PR |
| Pediatrics            | San Juan City Hospital                    | PR |
| Pediatrics            | San Juan City Hospital                    | PR |
| Pediatrics            | Univ of Puerto Rico                       | PR |
| Pediatrics            | Univ of Puerto Rico                       | PR |
| Pediatrics            | Univ of Puerto Rico                       | PR |
| Pediatrics            | Texas Tech U Affil-El Paso                | TX |
| Psychiatry            | Charles R Drew University                 | CA |
| Psychiatry            | Gateway Behavioral HIth Comm Svc          | GA |
| Psychiatry            | Gateway Behavioral HIth Comm Svc          | GA |
| Psychiatry            | Carle Foundation Hospital                 | IL |
| Psychiatry            | SIU SOM & Affil Hospitals                 | L  |
| Psychiatry            | Authority Health GME                      | MI |
| Psychiatry            | Wake Forest Baptist Med Ctr               | NC |
| Psychiatry            | Ponce Health Sciences Univ SOM            | PR |
| Psychiatry            | Ponce Health Sciences Univ SOM            | PR |
| Psychiatry            | Ponce Health Sciences Univ SOM            | PR |
|                       |   |    |

| Radiology/Diagnostic | HCA Healthcare/USF Morsani GME-Trinity | FL |
|----------------------|--|----|
| Radiology/Diagnostic | Detroit Med Ctr/WSU                    | MI |
| Radiology/Diagnostic | McLaren Health Care Corp               | MI |
| Radiology/Diagnostic | McLaren Health Care Corp               | MI |
| Surgery              | St Marys Hospital                      | СТ |
| Surgery              | U Minnesota Med School                 | MN |
| Surgery              | Hosp Episcopal San Lucas               | PR |
| Transitional         | Damas Hospital                         | PR |
| Transitional         | Damas Hospital                         | PR |
| Transitional         | Damas Hospital                         | PR |
| Transitional         | HIMA San Pablo Fajardo                 | PR |
| Transitional         | San Juan City Hospital                 | PR |

### Match Results 2020

| Anesthesiology              | McLaren Oakland Hospital   | MI |
|-----------------------------|--|----|
| Transitional/Anesthesiology | Kendall Regional Medical Center  | FL |
| Emergency Medicine          | University of Iowa Hospitals and Clinics                               | IA |
| Emergency Medicine          | Hospital Episcopal San Lucas   | PR |
| Emergency Medicine          | Hospital Episcopal San Lucas   | PR |
| Emergency Medicine          | University of Puerto Rico School of Medicine                           | PR |
| Emergency Medicine          | McLaren Macomb Hospital  | MI |
| Emergency Medicine          | McLaren Oakland Hospital   | MI |
| Family Medicine             | Medical College of Wisconsin Affiliated Hospitals-All Saints           | WI |
| Family Medicine             | Beaumont Hospital, Grosse Pointe                                       | MI |
| Family Medicine             | Louisiana State University Health Shreveport-North Caddo               | LA |
| Family Medicine             | University of Nevada, Reno School of Medicine-Rural                    | NV |
| Family Medicine             | Tuscaloosa College Community Health Sciences                           | AL |
| Family Medicine             | University of Arkansas College of Medicine-Little Rock                 | AR |
| Family Medicine             | Yuma Regional Medical Center   | AZ |
| Family Medicine             | Yuma Regional Medical Center   | AZ |
| Family Medicine             | St Francis Hospital  | DE |
| Family Medicine             | Community Health of South Florida                                      | FL |
| Family Medicine             | Houston Healthcare   | GA |
| Family Medicine             | Medical Center of Central Georgia/Mercer University School of Medicine | GA |
| Family Medicine             | Medical Center of Central Georgia/Mercer University School of Medicine | GA |
| Family Medicine             | Medical College of Georgia   | GA |
| Family Medicine             | Memorial Health University Medical Center                              | GA |
| Family Medicine             | Northeast Georgia Medical Center                                       | GA |
| Family Medicine             | Northside Hospital Gwinnett  | GA |
| Family Medicine             | Northeast Iowa Medical Education Foundation                            | IA |
| Family Medicine             | Northeast Iowa Medical Education Foundation                            | IA |
| Family Medicine             | Quincy Family Practice Center  | IL |
| Family Medicine             | Union Hospital   | IN |
| Family Medicine             | University Hospital & Clinics  | LA |
| Family Medicine             | University Hospital & Clinics  | LA |
| Family Medicine             | Ascension Genesys Regional Medical Center                              | MI |
| Family Medicine             | Henry Ford Hospital  | MI |
| Family Medicine             | Munson Medical Center  | MI |
| Family Medicine             | St. Joseph Mercy Livingston Hospital                                   | MI |
| Family Medicine             | CoxHealth  | MO |
| Family Medicine             | St. Luke's Hospital-Warren Campus                                      | NJ |
| Family Medicine             | Virtua Family Medicine   | NJ |
| Family Medicine             | Mercy Health-St. Vincent Medical Center                                | OH |
| Family Medicine             | Lower Bucks Hospital   | PA |
|                             |  |    |

| Family Medicine                        | St. Luke's Hospital-Sacred Heart Campus  | PA    |
|--|--|-------|
| Family Medicine                        | Grand Strand Medical Center  | SC    |
| Family Medicine                        | Baylor Scott & White   | TX    |
| Family Medicine                        | Johnston Memorial Hospital   | VA    |
| Family Medicine                        | Riverside Regional Medical Center  | VA    |
| Family Medicine                        | Mercy Health System  | WI    |
| Family Medicine                        | Mercy Health System  | WI    |
| Family Medicine                        | University of Wyoming—Casper   | WY    |
| Family Medicine                        | Univ of Wyoming—Cheyenne   | WY    |
| Family Medicine                        | McLaren Health Care—Bay  | MI    |
| Family Medicine                        | Mountain State Osteopathic Postdoctoral Training Institute—Bluefield             | WV    |
| Family Medicine                        | Texas Institute for Graduate Medical Education and Research–Larado               | TX    |
| Family Medicine                        | McLaren Macomb Hospital  | MI    |
| Family Medicine                        | McLaren Macomb Hospital  | MI    |
| Family Medicine                        | Texas Tech University Health Sciences Center at the Permian Basin                | TX    |
| Family Medicine                        | University of North Dakota School of Medicine–Rural Williston                    | ND    |
| Family Medicine                        | The Creighton University-Arizona Health Education Alliance—St. Joseph's Hospital | AZ    |
| General Surgery                        | Medical College of Georgia   | GA    |
| General Surgery                        | Wake Forest Baptist Medical Center   | NC    |
| General Surgery                        | Hospital Episcopal San Lucas   | PR    |
| General Surgery                        | Midwestern University Osteopathic Postdoctoral Training Institute–Mesa           | AZ    |
| Internal Medicine                      | University of Central Florida College of Medicine GME Consortium—Orlando         |       |
| Internal Medicine                      | UF Health Shands Hospital—Pensacola  | FL    |
| Internal Medicine                      | University of South Alabama College of Medicine, University Hospital             | AL    |
| Internal Medicine                      | St. Bernards Medical Center  | AR    |
| Internal Medicine                      | Aventura Hospital  | FL    |
| Internal Medicine                      | AU-UGA Medical Partnership   | GA    |
| Internal Medicine                      | AU-UGA Medical Partnership   | GA    |
| Internal Medicine                      | Medical College of Georgia   | GA    |
| Internal Medicine                      | Medical College of Georgia   | GA    |
| Internal Medicine                      | MedStar Union Memorial Hospital  | MD    |
| Internal Medicine                      | Authority Health GME   | MI    |
| Internal Medicine                      | Authority Health GME   | MI    |
| Internal Medicine                      | Wayne State University School of Medicine  | MI    |
| Internal Medicine                      | Wayne State University School of Medicine  | MI    |
| Internal Medicine                      | Mercy Health–St. Vincent Medical Center  | OH    |
| Internal Medicine                      | Mount Carmel Health System   | OH    |
| Internal Medicine                      | St. Mary Medical Center—Langhorne  | PA    |
| Internal Medicine                      | Damas Hospital   | PR    |
| Internal Medicine                      | Hospital Episcopal San Lucas   | PR    |
| Internal Medicine                      | San Juan City  | PR    |
| Internal Medicine                      | San Juan City  | PR    |
| Internal Medicine                      | San Juan City San Juan City  | PR    |
| Internal Medicine                      | University of Puerto Rico  | PR    |
| Internal Medicine                      | University of Puerto Rico  | PR    |
| Internal Medicine                      | University of Puerto Rico  | PR    |
| Internal Medicine                      | Detroit Medical Center   |       |
|  | Detroit Medical Center  Detroit Medical Center                                   | MI    |
| Internal Medicine                      |  | MI    |
| Internal Medicine Internal Medicine    | McLaren Macomb Hospital  McLaren Macomb Hospital                                 | MI MI |
| Internal Medicine Internal Medicine    | Creighton University Arizona Health Education Alliance—Maricopa Medical Center   | AZ    |
|  | · · · · · · · · · · · · · · · · · · ·  |       |
| Internal Medicine                      | McLaren Oakland Hospital Ascension Macomb-Oakland Hospital                       | MI    |
| Internal Medicine/Osteopathic          |  | MI    |
| Internal Medicine/Osteopathic          | Ascension Macomb-Oakland Hospital  | MI    |
| Medicine-Preliminary  Medicine Primary | MedStar Union Memorial Hospital  Greater Raltimore Medical Conter                | MD MD |
| Medicine-Primary                       | Greater Baltimore Medical Center   | MD    |

| Neurology             | Mercy Health Grand Rapids  | MI |
|-----------------------|--|----|
| Neurology             | Carilion Clinic-Virginia Tech Carilion School of Medicine            | VA |
| Obstetrics-Gynecology | Hurley Medical Center  | MI |
| Obstetrics-Gynecology | Hospital Episcopal San Lucas   | PR |
| Obstetrics-Gynecology | Hospital Episcopal San Lucas   | PR |
| Obstetrics-Gynecology | McLaren Macomb Hospital  | MI |
| Pathology             | Orlando Health   | FL |
| Pathology             | University of Toledo   | ОН |
| Pediatrics            | University of South Alabama College of Medicine, University Hospital | AL |
| Pediatrics            | Medical Center Central Georgia/Mercer University School of Medicine  | GA |
| Pediatrics            | Cook County Health and Hospitals System                              | IL |
| Pediatrics            | Hospital Episcopal San Lucas   | PR |
| Pediatrics            | Puerto Rico Women's & Children's Hospital                            | PR |
| Pediatrics            | Puerto Rico Women's & Children's Hospital                            | PR |
| Pediatrics            | University of Puerto Rico  | PR |
| Pediatrics            | University of Puerto Rico  | PR |
| Pediatrics            | Central Iowa Health System-Blank Children's Hospital                 | IA |
| Psychiatry            | Coliseum Medical Centers   | GA |
| Psychiatry            | Coliseum Medical Centers   | GA |
| Psychiatry            | Gateway Behavioral Health Community Services                         | GA |
| Psychiatry            | Gateway Behavioral Health Community Services                         | GA |
| Psychiatry            | Wake Forest Baptist Medical Center                                   | NC |
| Psychiatry            | Ponce Health Sciences University School of Medicine                  | PR |
| Radiology-Diagnostic  | St. Joseph Mercy Oakland Hospital                                    | MI |
| Surgery-Preliminary   | University of Minnesota Medical School                               | MN |
| Surgery-Preliminary   | Rutgers New Jersey Medical School                                    | NJ |
| Surgery-Preliminary   | Hospital Episcopal San Lucas   | PR |
| Surgery-Preliminary   | Recinto de Ciencias Médicas, Universidad de Puerto Rico              | PR |
| Transitional          | Damas Hospital   | PR |
| Transitional          | Damas Hospital   | PR |
| CANADA                |  |    |
| Family Medicine       | University of British Columbia                                       | CN |
| Family Medicine       | University of Toronto  | CN |

## Match Results 2019

| Kendall Regional Med Center   | FL   |
|---|--|
| McLaren Oakland Hospital  | MI   |
| University of Puerto Rico   | PR   |
| Ascension Macomb-Oakland Hospital   | MI   |
| University of Alabama College of Community Health Sciences                        | AL   |
| University of Arkansas for Medical Science Regional Centers                       | AR   |
| Keralty Hospital  | FL   |
| Houston Healthcare  | GA   |
| Medical Center of Columbus  | GA   |
| Medical Center of Columbus  | GA   |
| MercyOne Des Moines Medical Center  | IA   |
| MercyOne Des Moines Medical Center  | IA   |
| Mercyhealth GME Consortium  | IL   |
| Southern Illinois University Center for Family Medicine—Quincy                    | IL   |
| Southern Illinois University—Carbondale   | IL   |
| Baptist Health Madisonville   | KY   |
| Ascension Providence Hospital/Michigan State University College of Human Medicine | MI   |
| Detroit Medical Center/Wayne State University                                     | MI   |
| McLaren Oakland Hospital  | MI   |
|   | McLaren Oakland Hospital University of Puerto Rico Ascension Macomb—Oakland Hospital University of Alabama College of Community Health Sciences University of Arkansas for Medical Science Regional Centers Keralty Hospital Houston Healthcare Medical Center of Columbus Medical Center of Columbus MercyOne Des Moines Medical Center MercyOne Des Moines Medical Center MercyOne Des Moines Medical Center Mercyhealth GME Consortium Southern Illinois University Center for Family Medicine—Quincy Southern Illinois University—Carbondale Baptist Health Madisonville Ascension Providence Hospital/Michigan State University College of Human Medicine Detroit Medical Center/Wayne State University |

| Family Medicine   | ProMedica   | MI   |
|-------------------|---|------|
| Family Medicine   | Spectrum Health/Michigan State University                           | MI   |
| Family Medicine   | Hennepin County Medical Center                                      | MN   |
| Family Medicine   | Virtua Family Medicine  | NJ   |
| Family Medicine   | Conemaugh Memorial Medical Center                                   | PA   |
| Family Medicine   | Drexel University College of Medicine/Hahnemann University Hospital | PA   |
| Family Medicine   | St. Luke's Hospital-Anderson Campus                                 | PA   |
| Family Medicine   | University of Wisconsin School of Medicine and Public Health        | WI   |
| Family Medicine   | Wheeling Hospital   | WV   |
| Family Medicine   | Wheeling Hospital   | WV   |
| General Surgery   | Hospital Episcopal San Lucas  | PR   |
| General Surgery   | Marshfield Clinic   | WI   |
| Internal Medicine | Southeast Alabama Medical Center                                    | AL   |
| Internal Medicine | Baptist Health  | AR   |
| Internal Medicine | NYCOMEC/St. Bernards Medical Center                                 | AR   |
| Internal Medicine | NYCOMEC/St. Bernards Medical Center                                 | AR   |
| Internal Medicine | Unity Health  | AR   |
| Internal Medicine | University of Connecticut School of Medicine                        | CT   |
| Internal Medicine | Blake Medical Center  | FL   |
| Internal Medicine | Blake Medical Center  | FL   |
| Internal Medicine | Blake Medical Center  | FL   |
| Internal Medicine | Broward Health Medical Center                                       | FL   |
| Internal Medicine | Florida Atlantic University-Schmidt College of Medicine             | FL   |
| Internal Medicine | Kendall Regional Medical Center                                     | FL   |
| Internal Medicine | Kendall Regional Medical Center                                     | FL   |
| Internal Medicine | Oak Hill Hospital   | FL   |
| Internal Medicine | Oak Hill Hospital   | FL   |
| Internal Medicine | University of Central Florida College of Medicine/GME Consortium    | FL   |
| Internal Medicine | University of Hawaii  | HI   |
| Internal Medicine | Mercy Hospital & Medical Center                                     |      |
| Internal Medicine | Mercy Hospital & Medical Center                                     | IL   |
| Internal Medicine | Mercyhealth GME Consortium  | IL . |
| Internal Medicine | University Hospitals & Clinics                                      | LA   |
| Internal Medicine | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine | Detroit Medical Center  | MI   |
| Internal Medicine | Detroit Medical Center Sinai Grace Hospital                         | MI   |
| Internal Medicine | Detroit Medical Center Sinai Grace Hospital                         | MI   |
| Internal Medicine | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine | McLaren Oakland Hospital  | MI   |
| Internal Medicine | McLaren Oakland Hospital  | MI   |
| Internal Medicine | McLaren Oakland Hospital  | MI   |
| Internal Medicine | St. Joseph Mercy Oakland  | MI   |
| Internal Medicine | Wayne State University School of Medicine                           | MI   |
| Internal Medicine | Wayne State University School of Medicine                           | MI   |
| Internal Medicine | Wayne State University School of Medicine                           | MI   |
| Internal Medicine | Campbell University/Southeastern Health Residency Program           | NC   |
| Internal Medicine | Vidant Medical Center   | NC   |
| Internal Medicine | Creighton University School of Medicine Affiliated Hospitals        | NE   |
| Internal Medicine | Sunrise Health GME Consortium                                       | NV   |
| Internal Medicine | Good Samaritan Hospital   | OH   |
| Internal Medicine | University of Toledo  | OH   |
|                   | V   |      |

| Internal Medicine           | University of Pittsburgh Medical Center Mercy Hospital     | PA |
|-----------------------------|--|----|
| Internal Medicine           | University of Pittsburgh Medical Center Pinnacle Hospitals | PA |
| Internal Medicine           | University of Pittsburgh Medical Center Pinnacle Hospitals | PA |
| Internal Medicine           | Wright Center for GME                                      | PA |
| Internal Medicine           | Damas Hospital   | PR |
| Internal Medicine           | Hospital Episcopal San Lucas                               | PR |
| Internal Medicine           | Hospital Episcopal San Lucas                               | PR |
| Internal Medicine           | Hospital Episcopal San Lucas                               | PR |
| Internal Medicine           | Hospital Episcopal San Lucas                               | PR |
| Internal Medicine           | Mayaguez Medical Center                                    | PR |
| Internal Medicine           | University of Puerto Rico                                  | PR |
| Medicine/Pediatrics         | Marshfield Clinic  | WI |
| Neurology                   | University of Arizona College of Medicine at Tucson        | AZ |
| Neurology                   | St. Luke's Hospita-Anderson Campus                         | PA |
| Obstetrics/Gynecology       | Bridgeport Hospital  | СТ |
| Obstetrics/Gynecology       | Aultman Hospital/Northeast Ohio Medical University         | OH |
| Obstetrics/Gynecology       | Hospital Episcopal San Lucas                               | PR |
| Pathology                   | Orlando Health   | FL |
| Pediatrics                  | Hurley Medical Center                                      | MI |
| Pediatrics                  | Hurley Medical Center                                      | MI |
| Pediatrics                  | St. Joseph's Regional Medical Center                       | NJ |
| Pediatrics                  | Saint Peter's University Hospital                          | NJ |
| Pediatrics                  | Hospital Episcopal San Lucas                               | PR |
| Pediatrics                  | Puerto Rico Women's and Children's Hospital                | PR |
| Pediatrics                  | Puerto Rico Women's and Children's Hospital                | PR |
| Pediatrics                  | University of Puerto Rico                                  | PR |
| Pediatrics                  | Texas Tech University Health Sciences Center El Paso       | TX |
| Phys Medicine & Rehab       | Sunrise Health GME Consortium                              | NV |
| Psychiatry                  | Ponce Health Sciences University                           | PR |
| Surgery                     | Mayo Clinical  | AZ |
| Surgery                     | Brandon Regional Hospital                                  | FL |
| Surgery                     | University of South Florida Morsani College of Medicine    | FL |
| Surgery                     | Medical College of Georgia                                 | GA |
| Surgery                     | Wake Forest Baptist Medical Center                         | NC |
| Transitional                | McLaren Oakland Hospital                                   | MI |
| Transitional                | Damas Hospital   | PR |
| Transitional                | Damas Hospital   | PR |
| Transitional/Anesthesiology | Kendall Regional Medical Center                            | FL |
| CANADA                      |  |    |
| Family Medicine             | University of Montreal                                     | CN |

| Matal | Door   | 140 0 | 010  |
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| Anesthesiology     | University of Arkansas for Medical Sciences   | AK    |
|--------------------|---|-------|
| Anesthesiology     | Kendall Regional Medical Center   | FL    |
| Emergency Medicine | McLaren Oakland Hospital  | MI    |
| Emergency Medicine | McLaren Oakland Hospital  | MI    |
| Family Medicine    | Baptist Health  | AL    |
| Family Medicine    | Baptist Health  | AL    |
| Family Medicine    | The University of Alabama College of Community Health Sciences                            | AL    |
| Family Medicine    | The University of Alabama College of Community Health Sciences                            | AL    |
| Family Medicine    | Gwinnett Medical Center   | GA    |
| Family Medicine    | WellStart Kennestone Regional Medical Center  | GA    |
| Family Medicine    | WellStart Kennestone Regional Medical Center  | GA    |
| Family Medicine    | Mercy Medical Center  | IA    |
| Family Medicine    | Quincy Family Practice Center   | IL    |
| Family Medicine    | Rush-Copley Medical Center  | IL    |
| Family Medicine    | Southern Illinois University Center for Family Medicine                                   | IL    |
| Family Medicine    | Baptist Health Madisonville   | KY    |
| Family Medicine    | LSU School of Medicine Rural Family Medicine Residency Program                            | LA    |
|                    | University Hospitals and Clinics  | LA    |
| Family Medicine    |   |       |
| Family Medicine    | Oakland University William Beaumont School of Medicine                                    | MI    |
| Family Medicine    | Ascension Genesys Regional Medical Center   | MI    |
| Family Medicine    | Mercy Health Grand Rapids  PONTIAC ConstruI I conital/Octoberd Physicians Medical Contar  | MI    |
| Family Medicine    | PONTIAC General Hospital/Oakland Physicians Medical Center                                | MI    |
| Family Medicine    | Hennepin County Medical Center  | MN    |
| Family Medicine    | University of Mississippi Medical Center  | MS    |
| Family Medicine    | Vidant Medical Center-East Carolina University  | NC    |
| Family Medicine    | University of North Dakota: School of Medicine and Health Sciences                        | ND    |
| Family Medicine    | University of North Dakota: School of Medicine and Health Sciences                        | ND    |
| Family Medicine    | University of North Dakota: School of Medicine and Health Sciences                        | ND    |
| Family Medicine    | CHI Health-Creighton University Medical Center  | NE NE |
| Family Medicine    | Lincoln Medical Education Partnership   | NE    |
| Family Medicine    | Hackensack Meridian Health Palisades Medical Center                                       | NJ    |
| Family Medicine    | Hoboken University Medical Center/New York Medical College Program                        | NJ    |
| Family Medicine    | Hackensack Meridian Health Ocean Medical Center   | NJ    |
| Family Medicine    | Adena Health System   | OH    |
| Family Medicine    | Akron General Medical Center  | ОН    |
| Family Medicine    | Conemaugh Memorial Medical Center   | PA    |
| Family Medicine    | The Wright Center for Graduate Medical Education  | PA    |
| Family Medicine    | Center for Family Medicine  | SD    |
| Family Medicine    | The University of Tennessee Health Science Center Saint Francis Family Medicine Residency | TN    |
| Family Medicine    | Texas Tech University Health Sciences Center  | TX    |
| Family Medicine    | Medical College of Wisconsin Affiliated Hospitals   | WI    |
| Family Medicine    | Mercy Health System   | WI    |
| Family Medicine    | Mercy Health System   | WI    |
| Family Medicine    | United Hospital Center  | WV    |
| Family Medicine    | Wheeling Hospital   | WV    |
| Family Medicine    | University of Wyoming   | WY    |
| Internal Medicine  | University of South Alabama Health System   | AL    |
| Internal Medicine  | University of South Alabama Health System   | AL    |
| Internal Medicine  | Yale New Haven Health Bridgeport Hospital   | CT    |
| Internal Medicine  | Griffin Hospital  | СТ    |
| Internal Medicine  | University of Connecticut School of Medicine  | CT    |
| Internal Medicine  | Blake Medical Center  | FL    |
| Internal Medicine  | Charles E. Schmidt College of Medicine  | FL    |
| Internal Medicine  | Kendall Regional Medical Center   | FL    |

| Internal Medicine     | University of Central Florida (UCF) College of Medicine Graduate Medical Education Consortium   | FL   |
|-----------------------|---|------|
| Internal Medicine     | University of Central Florida (UCF) College of Medicine Graduate Medical Education Consortium   | FL   |
| Internal Medicine     | University of Central Florida (UCF) College of Medicine Graduate Medical Education Consortium   | FL   |
| Internal Medicine     | Augusta University-University of Georgia Medical Partnership  | GA   |
| Internal Medicine     | Augusta University-University of Georgia Medical Partnership  | GA   |
| Internal Medicine     | Gwinnett Medical Center   | GA   |
| Internal Medicine     | Swedish Covenant Hospital   | IL   |
| Internal Medicine     | University of Illinois at Chicago College of Medicine/Advocate Christ Medical Center  | IL   |
| Internal Medicine     | Greater Baltimore Medical Center  | MD   |
| Internal Medicine     | MedStar Union Memorial Hospital   | MD   |
| Internal Medicine     | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine     | Sinai Hospital of Baltimore   | MD   |
| Internal Medicine     | Detroit Medical Center/Wayne State University/Huron Valley-Sinai Hospital   | MI   |
| Internal Medicine     | Genesys Regional Medical Center   | MI   |
| Internal Medicine     | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine     | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine     | Henry Ford Macomb Hospital  | MI   |
| Internal Medicine     | McLaren Oakland Hospital  | MI   |
| Internal Medicine     | McLaren Oakland Hospital  | MI   |
| Internal Medicine     | McLaren Oakland Hospital  | MI   |
| Internal Medicine     | Wayne State University School of Medicine   | MI   |
| Internal Medicine     | Wayne State University School of Medicine   | MI   |
| Internal Medicine     | Wayne State University School of Medicine   | MI   |
| Internal Medicine     | Hackensack Meridian Health Mountainside Medical Center  | NJ   |
| Internal Medicine     | Drexel University College of Medicine/Hahnemann University Hospital   | PA   |
| Internal Medicine     | Mercy Catholic Medical Center   | PA   |
| Internal Medicine     | Pinnacle Health Hospitals   | PA   |
| Internal Medicine     | St. Mary Medical Center   | PA   |
| Internal Medicine     | University of Pittsburgh Medical Center Mercy Hospital  | PA   |
| Internal Medicine     | Hospital Damas  | PR   |
| Internal Medicine     | Hospital Episcopal San Lucas  | PR   |
| Internal Medicine     | Hospital Episcopal San Lucas  | PR   |
| Internal Medicine     | Hospital Episcopal San Lucas  | PR   |
| Internal Medicine     | San Juan City Hospital  | PR   |
| Internal Medicine     | University of Puerto Rico School of Medicine  | PR   |
| Internal Medicine     | University of Puerto Rico School of Medicine  | PR   |
| Internal Medicine     | University of Puerto Rico School of Medicine  | PR   |
| Internal Medicine     | University of Puerto Rico School of Medicine  | PR   |
| Internal Medicine     | Roger Williams Medical Center   | RI   |
| Internal Medicine     | East Tennessee State University   | TN   |
| Internal Medicine     | University of Tennessee College of Medicine   | TN   |
| Internal Medicine     | Carilion Clinic   | VA   |
| Medicine/Pediatrics   | Louisiana State University School of Medicine   | LA   |
| Medicine/Pediatrics   | University Hospital   | MO   |
| Medicine/Pediatrics   | University of Missouri Health Care  | MO   |
| Neurology             | Mercy Health-St. Vincent Medical Center   | ОН   |
| Obstetrics/Gynecology | Medical Center Navicent Health/Mercer University School of Medicine   | GA   |
| Ophthalmology         | The Medical University of South Carolina  | SC   |
| Pediatrics            | Sinai Hospital of Baltimore   | MD   |
| Pediatrics            | Hospital Episcopal San Lucas  | PR   |
| Psychiatry            | Citrus Health Network   | FL   |
| Psychiatry            | Coliseum Medical Centers  | GA   |
| Radiology/Diagnostic  | St. Joseph Mercy Oakland  | MI   |
| Surgery               | Mayo Clinic School of Graduate Medical Education  | AZ   |
| Surgery               | Kendall Regional Medical Center   | FL   |
| Surgery               | Spectrum Health/Michigan State University College of Human Medicine   | MI   |
| Surgery               | Speciality route with inguit of the original of the original of the original of the original | 1411 |

| Surgery              | St. Joseph Mercy Oakland                      | MI |
|----------------------|---|----|
| Surgery              | Hospital Episcopal San Lucas                  | PR |
| Surgery              | Hospital Episcopal San Lucas                  | PR |
| Surgery              | The Medical University of South Carolina      | SC |
| Transitional         | Brandon Regional Hospital                     | FL |
| Transitional         | Kendall Regional Medical Center               | FL |
| Transitional         | Coliseum Medical Centers                      | GA |
| Transitional         | Detroit Medical Center/Wayne State University | MI |
| Transitional         | Damas Hospital                                | PR |
| Transitional         | Damas Hospital                                | PR |
| CANADA               |   |    |
| Anatomical Pathology | University of Calgary                         | CN |

# Faculty and Administration

Faculty members at UMHS share a love of teaching. As skilled and credentialed educators with backgrounds in medical education, research, and administration, they truly believe that medical students deserve the best instructional methods and technological tools available today.

Priding themselves on their high level of availability to UMHS students inside and outside of the classroom, our faculty create a nurturing learning environment. We are a small school catering to the individual needs of our students. Unlike other Caribbean medical schools, we offer a personalized education and work closely with each student to ensure their success. As a result, our current attrition rate is approximately four percent in the Basic Science Program.

Each faculty member was selected because of their unique set of academic medicine capabilities. Team members include both educators who transitioned from private practice to academic medicine and educators who have spent their entire careers focused on providing the finest instruction to medical students. As UMHS grows, recruitment of credentialed and qualified faculty primarily from U.S. medical schools is ongoing.

## **U.S.-Based Administration**

#### **Executive Office**

WARREN ROSS, J.D.

President

wross@umhs-sk.net

DAVID R. GRAHAM,

M.B.Ch.B., M.D. F.R.C.P., F.F.S.E.M.

Provost

dgraham@umhs-sk.net

JERRY W. THORNTON, Ph.D.

**Executive Vice President** 

jthornton@umhs-sk.net

ANNE PRILLAMAN, J.D., M.B.A.

Chief Financial Officer

aprillaman@umhs-sk.net

### Office of the Registrar

LINDA EVERETT, B.S.

University Registrar

leverett@umhs-sk.net

BRIJETTE SENA, Ed.D, M.B.A.

Associate Dean of Academic Administration,

Director of Institutional Research

bsena@umhs-sk.net

MARLENE HUMMEL, B.S.

Associate Registrar

mhummel@umhs-sk.net

KAYLA MARTINEZ, M.B.A.

Associate Registrar

kaylamartinez@umhs-sk.net

**EBONY SMITH** 

Assistant Registrar for Academic Administration

esmith@umhs-sk.net

ARIANA EVERETT

Registrar Coordinator for Academic Administration

aeverett@umhs-sk.net

MOLLY McLAUGHLIN, M.A.

Assistant Registrar for Academic Administration

mmclaughlin@umhs-sk.net

ISABEL MONARCA

Assistant Registrar

imonarca@umhs-sk.net

**EARNESTINE HARRISON** 

Assistant Registrar

eharrison@umhs-sk.net

### **Clinical Department**

GEORGE H. SHADE JR., M.D.

Dean of Clinical Sciences, Clinical Chair.

Professor of Clinical Medicine

ashade@umhs-sk.net

DAVID L. FELTEN, M.D., Ph.D.

Associate Dean of Clinical Sciences,

Professor of Neurosciences

dfelten@umhs-sk.net

DONNA THOMPSON, M.D.C.M.

Associate Dean of Clinical Sciences,

Professor of Clinical Medicine

dthompson@umhs-sk.net

MAXINE PAUL, J.D.

**Director of Clinical Relations** 

mpaul@umhs-sk.net

PHILL PERRI, B.S.

Director of Hospital Procurement,

Relationships, and Background Analytics

pperri@umhs-sk.net

### **Clinical Placement**

BRANDY ADMENDARES, M.A.

Associate Director of Clinical Placement

hadmendares@umhs-sk.net

TAMARA LARA, B.A.

Clinical Placement Coordinator

tlara@umhs-sk.net

VERONICA MCFARLAND, B.A.

Clinical Placement Advisor

vmcfarland@umhs-sk.net

**KELLI JEFFERSON** 

Clinical Placement Advisor

kjefferson@umhs-sk.net

### **Academic Affairs**

PATRICK McCORMICK

Associate Dean of Academic and Student Affairs

pmccormick@umhs-sk.net

JONATHAN TIMEN

Associate Director of Academic and Student Affairs

itimen@umhs-sk.net

GARRETT GEISLER, M.A.

Senior Professional Development Advisor

geisler@umhs-sk.net

### Admissions and Enrollment Management

MARIE B. McGILLYCUDDY, M.S.

Vice President of Admissions

mmcgillycuddy@umhs-sk.net

MICHELLE PERES, B.A.

Vice President of Enrollment Management

mperes@umhs-sk.net

NELIDA ALVAREZ

Post Acceptance Director

nalvarez@umhs-sk.net

CAROLE WALKER, M.A.

Regional Director of Admissions, Midwest

cwalker@umhs-sk.net

EARL MAINER, B.A.

Senior Associate Director of Admissions,

Southeast and Puerto Rico

emainer@umhs-sk.net

MELANIE WEINER, M.S.

Associate Director of Admissions, Southeast

meweiner@umhs-sk.net

CORIE HELMS, B.A.

Associate Director of Admissions, Midwest

chelms@umhs-sk.net

SHYAM DHARIA, B.S.

Director of Enrollment Management, Northeast

sdharia@umhs-sk.net

SHELLY SUROWITZ

Applicant Coordinator, Florida Office

ssurowitz@umhs-sk.net

GILLIAN HYMAN

Admissions Coordinator, Florida Office

ghyman@umhs-sk.net

DEBORAH GALDAMES

Applicant Coordinator

dgaldames@umhs-sk.net

## Portland, Maine Campus

PATRICE M. THIBODEAU, M.D. Assistant Clinical Dean, Director of Introduction to Clinical Medicine II pthibodeau@umhs-sk.net

DONNA THOMPSON, M.D.C.M. Associate Dean of Clinical Sciences, Professor of Clinical Medicine dthompson@umhs-sk.net

MOLLY JOHANNESSEN, Ph.D.
Director of Education and Teaching,
Director of the Biological Basis of
Clinical Medicine course,
Associate Professor of Physiology
mjohannessen@umhs-sk.net

HEATHER ROBERTSON, M.H.S., PA-C Director of ICM II Clinical Skills Lab & Preceptorship Program hrobertson@umhs-sk.net

MATTHEW MICHAUD, N.D., M.A. Associate Director of Support and Learning Development mmichaud@umhs-sk.net

RACHAEL ROBERTS, B.S.
Senior Manager of Programs and Technology rroberts@umhs-sk.net

JULIE RICE, B.A.

Program Coordinator and Facilities Manager irice@umhs-sk.net

#### Office of the Bursar

MAGDALENA ROSARIO, B.A. University Bursar mrosario@umhs-sk.net

KELLY RODRIGUEZ, A.S. Accounts Receivable Specialist krodrizuez@umhs-sk.net

DAVID CURRY, B.S. Student Account Specialist bcurry@umhs-sk.net

#### Office of Financial Aid

ELISSA SCHOENING Director of Financial Aid eschoening@umhs-sk.net

SANDRA PAUL
Assistant Director of Financial Aid
spaul@umhs-sk.net

NANDI GUY Financial Aid Advisor nguy@umhs-sk.net

### Information Technology

WAYNE WILLIAMS, B.S. Chief Technology Officer wwilliams@umhs-sk.net

MOHIT SAXENA, M.S. Senior Systems Analyst msaxena@umhs-sk.net

### Marketing Department

RYAN ROSS, M.P.H. Director of Marketing rross@umhs-sk.net

SCOTT HARRAH, M.A. Director of Digital Content sharrah@umhs-sk.net

### Purchasing Department

VINCENT BOLOGNA
Director of Purchasing
vbologna@umhs-sk.net

#### **Clinical Administration**

GEORGE H. SHADE JR., M.D.
Dean of Clinical Science, Clinical Chair
Professor of Clinical Medicine

DAVID L. FELTEN, M.D., Ph.D. Associate Dean of Clinical Sciences, Professor of Neurosciences

STEVE CAPLAN, M.D. Clinical Chair, Chief of Pediatrics

CHARLES HERRICK, M.D. Clinical Chair, Chief of Psychiatry

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Dean of Basic Science,

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PRAKASH MUNGLI, M.D., M.B.B.S. Dean of Student Affairs,

Chair of Molecular Sciences,

Course Director and Professor of Biochemistry

Assistant Dean of Student Affairs, Department Chair, Course Director, Professor of Preclinical Science

MOHAN KUMAR, M.D., M.B.B.S.

DOUGLAS A. COTANCHE, Ph.D. Course Director of Human Anatomy,

Professor of Anatomy

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Director, Information Technology, St. Kitts

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DOUGLAS A. COTANCHE, Ph.D. Course Director of Human Anatomy, Professor of Anatomy

SUDHIR AMBATI, M.P.H., M.B.B.S. Course Director of Epidemiology and Biostatistics, Associate Professor of Preclinical Science

JIJI ARAVINDAKSHAN, M.D., M.B.B.S. Associate Professor of Physiology and Pathology

NORMA ANN CELESTINE, M.L.S., B.A., A.H.I.P. Director of Library and Educational Applications, Assistant Professor of Library Research

GARETH DAVIES, Ph.D. Course Director of Immunology, Professor of Molecular Sciences

ADEGBENRO O. J. FAKOYA, Ph.D. (PMR), M.B.B.S., M.Sc., M.B.A, PGDip. Director of the Accelerated Review Program, Course Director of Histology, Associate Professor of Anatomy

DAVID L. FELTEN, M.D., Ph.D. Associate Dean of Clinical Sciences, Professor of Neurosciences

LATA GOWDA, M.P.T., B.P.T., B.A. Human Simulation Coordinator

VEERABHADRA GOWDA, M.B.B.S., M.D., D.C.C.P. Professor of Pharmacology, Introduction to Clinical Medicine and Physical Diagnosis

CAVELLE HOBSON, M.D.

Clinical Assistant Professor of Medicine

JOHN HOLLEY, M.D., Ph.D. Assistant Professor of Anatomy

NEILAL ISAAC, M.D., MMEd

Assistant Professor,

Pre-clinical Sciences and Simulation Lab Director, Course Director of Evidence Based Medicine

ANOOP KUMAR JALAN, M.D., M.B.B.S. Professor of Pathology, Professor of Microbiology YOGITHA JALAN, B.SC., M.SC. Instructor of Microbiology

MOLLY JOHANNESEEN, Ph.D.
Director of Education and Teaching,
Director of the Biological Basis of
Clinical Medicine course,
Associate Professor of Physiology

FRANK JONES, Ph.D.

Professor of Pharmacology and Molecular Science

ANNETTE KIRCHGESSNER, Ph.D. Associate Professor of Anatomy

MOHAN KUMAR, M.D., M.B.B.S. Assistant Dean of Student Affairs, Department Chair, Course Director, Professor of Preclinical Science

PETER LEE, Ph.D.

Co-Director of Behavioral Science, Associate Professor of Behavioral Sciences

AMANDA MASSICOTT, M.A.
Counselor and Assistant Professor
of Medical Education

THOMAS MCCRACKEN, Ph.D. (H.C.), M.S., M.S., B.E. Professor of Anatomy

PRAKASH MUNGLI, M.B.B.S., M.D.

Dean of Student Affairs,

Chair of Molecular Sciences,

Course Director and Professor of Biochemistry

JAGADEESH NAGAPPA, M.B.B.S., D.F.M. Associate Professor of Physiology

SHANNON NANNA, Psy.D.

Associate Professor of Behavioral Science and Preclinical Sciences

AKINTOLA ODUTOLA,

B.Med.Sci., M.B., B.S., Ph.D.. FRCSEd

Professor of Anatomy,

Course Director of Neuroscience

EDWIN PURCELL, Ph.D.

Associate Dean of Academic Affairs

DONALD ROBERTS, M.D.

Dean of Basic Science,

Professor of Anatomy and Preclinical Science

ALFRED ROY, M.D., M.B.B.S.

Chair, Course Director,

and Professor of Pathology

BICHARA S. SAHELY,

B.SC. (HONS), M.D., M.B.B.S., D.M. (UWI)

Clinical Assistant Professor of Medicine

PINAKINI SHANKAR, M.B.B.S., M.D.

Course Director and Professor of Pharmacology

RANIA SIAM, M.B.B.Ch., Ph.D.

Course Director and Professor of Microbiology

LUISA VELOZ, M.D.

Assistant Professor of Preclinical Science

FRANK WAGNER, Psy.D., M.A., B.S., B.B.A.

Chair and Professor of Behavioral Science

 ${\sf CAMERON~WILKINSON,~M.D.,~F.R.C.S.}$ 

Clinical Professor of Surgery

DR. EDITH ESPARZA-YOUNG, Ed.D.

Associate Professor of Learning Development

and Language Skills

### **U.S. Administration**

GEORGE H. SHADE JR., M.D.

Dean of Clinical Science, Clinical Chair,

Professor of Clinical Medicine

DAVID L. FELTEN, M.D.

Associate Dean of Clinical Sciences,

Professor of Neurosciences

## Maine Administration and Faculty

PATRICE M. THIBODEAU, M.D.

Assistant Clinical Dean,

Director of Introduction to Clinical Medicine II

pthibodeau@umhs-sk.net

DONNA THOMPSON, M.D.C.M.

Associate Dean of Clinical Sciences.

Professor of Clinical Medicine

dthompson@umhs-sk.net

MOLLY JOHANNESSEN, Ph.D.

Director of Education and Teaching,

Director of the Biological Basis of

Clinical Medicine course,

Associate Professor of Physiology

mjohannessen@umhs-sk.net

HEATHER ROBERTSON, M.H.S., PA-C

Director of ICM II Clinical Skills Lab &

Preceptorship Program

hrobertson@umhs-sk.net

MATTHEW MICHAUD, N.D., M.A.

Associate Director of Support

and Learning Development

mmichaud@umhs-sk.net

RACHAEL ROBERTS, B.S.

Senior Manager of Programs and Technology

rroberts@umhs-sk.net

JULIE RICE, B.A.

Program Coordinator and Facilities Manager

jrice@umhs-sk.net

## Clinical Adjunct Faculty/Maine

JOSCAR CABATINGAN, M.D.

Internal Medicine

KAREN EWERT, M.D.

Obstetrics/Gynecology

ROBERT WILHOITE, M.D.

Pathology

RICHARD KAPPELMAN, M.D.

Internist

## Portland, Maine Faculty/Preceptors

SAM ADLER, M.D.

MICHAEL BROWN, M.D.

DAVID BURKE, M.D.

ALISON DAIGLE, M.D.

ADAM DUQUETTE, D.O.

NANCY GOODWIN, M.D.

TRISHA GUSHUE, M.D.

KATE HERLIHY, M.D.

COURTNEY JENSEN, M.D.

DASHIELL JORDAN, M.D.

RICHARD KAPPELMANN, M.D.

RICHARD KUTZ, M.D.

JOCELYN LANGEVIN, D.O.

THOMAS MORRIONE, M.D.

STEPHEN O'DONNELL, M.D.

NATHAN RABY, D.O.

DANIEL RAUSCH, M.D.

SARAH SKELTON, M.D.

JENNIFER SUNDAY, D.O.

RAYMOND TARDIFF, M.D.

JERI WADE, N.P.

SARAH WILSON, M.D.

## Portland, Maine Campus Faculty

MARK ALEXANDER, D.O.

JENNIFER ARONSON, M.D.

CINDY AVERY, M.D.

MARLY BIERMANN, M.D.

MARY CARPENTER, M.S., CGC

SHANNON DESCHENES, D.O.

TERESITA MAGUIRE, M.D.

JANE PRINGLE, M.D.

DWIGHT PRINGLE, M.D.

SHAPIR ROSENBERG, M.D.

MARGARET SHEPP, M.D.

JULIE SCHIRMER, MSE, LCSW

WILLIAM SCHIRMER, M.D.

VICKI STEVENS, NREMT-P

ZACK TRASKA, M.D.

## **Administration and Faculty Profiles**

## David R. Graham, M.B.Ch.B., M.D., F.R.C.P., F.F.S.E.M.

#### Provost

Dr. David R. Graham qualified in 1977 from the Liverpool Medical School at the University of Liverpool in the UK. He trained in many of hospitals in northwestern England, including the Royal Liverpool University Teaching Hospital, and also in the University Hospital, London, Ontario, Canada. He carried out research in several areas of respiratory medicine, producing papers and presenting at the American Thoracic Society. An extended piece of research led to the award of a postgraduate M.D. by the University of Liverpool.

Dr. Graham became a consultant physician specializing in general internal medicine and respiratory medicine; he also became a Fellow of the Royal College of Physicians (F.R.C.P.).

He developed his interest in medical education, becoming a clinical tutor, and then deputy postgraduate dean. In 1999, he was appointed as the postgraduate dean for the Mersey Deanery and was responsible for the development and delivery of training for over 2,200 junior doctors in the hospitals across Merseyside, a county in northwestern England.

In 2008, Dr. Graham became a professor of medical education at the University of Liverpool, and soon afterward, also became dean of the Liverpool Medical School. He was the first postgraduate dean to hold both undergraduate and postgraduate roles. As dean of the medical school, he was responsible for both the teaching programs for 1,500 medical students and the five research schools.

In 2014, Dr. Graham was appointed as a non-executive director and board member of St. Helens and Knowsley University Teaching Hospitals NHS Trust.

Dr. Graham acted as a consultant and advisor at UMHS starting in 2015. He formally joined UMHS in April 2018. He brings a wealth of experience and remains committed to medical education and the development of the young professionals of the future, who will enhance and provide excellent care for their patients.

## Donald Roberts, M.D., F.A.C.S.

#### Dean of Basic Science,

#### **Professor of Anatomy and Preclinical Science**

After Dr. Donald Roberts completed premedical studies at Millsaps College, he earned his M.D. (Summa cum laude) in 1975 at the University of Mississippi Medical School. His residency training in otolaryngology/head and neck surgery was completed at Louisiana State University Medical Center in New Orleans from 1975–1980.

Dr. Roberts was awarded the American Board of Otolaryngology/ Head and Neck Surgery Certification in 1980, and he earned Fellowship in the American College of Surgeons in 1983. He is also a Fellow in the American Academy of Otolaryngology/Head and Neck Surgery, and a Fellow in the American Academy of Facial Plastic and Reconstructive Surgery, as well as adjunct clinical faculty at Cleveland Clinic, Ohio. He maintains active medical licenses in Florida and Belize.

Dr. Roberts served as Chief of the Otolaryngology Service at Wright Patterson Air Force Base Medical Center in Ohio from 1980 to 1982, and he received the USAF Commendation Medal. He also held a clinical assistant professorship at Wright State University Medical School in Dayton, Ohio during his active duty in the military.

Following 19 years of private practice in ENT in the U.S.—during which he was a clinical associate professor at LSU Medical Center in New Orleans—he served as Anatomy Department chairman and dean of basic sciences at St. Matthews University Medical School in Belize and Cayman Islands from 2001 to 2004. During that time, he also served as diving medical officer and ENT consultant.

For 13 years, he served as senior consultant and chairman of the Otolaryngology/Head and Neck Surgery Department at Sheikh Khalifa Medical Center, the tertiary referral center for Abu Dhabi, United Arab Emirates, where he was also in charge of clinical rotations for medical students, interns, and surgery residents.

Since Winter 2019, Dr. Roberts has served as the Dean of Basic Sciences and professor of anatomy at UMHS. He brings a long and distinguished international career and extensive experience in clinical, administrative, and academic medicine to the University.

## Edwin S. Purcell, Ph.D.

## Associate Dean of Academic Affairs, Professor of Anatomy

The University is pleased to announce the appointment of Dr. Edwin S. Purcell to the position of Associate Dean of Academic Affairs. Dr. Edwin S. Purcell earned a Ph.D. in anatomy from the University of Kansas Medical Center in Kansas City, Kansas. He received his M.A. in physiology and his B.A. in biology from the University of Kansas, Lawrence. Dr. Purcell also has an A.A. and a B.A. in psychology from Monmouth College in West Long Branch, New Jersey.

Dr. Purcell's extensive medical education background has included his work as an instructor of biological sciences at Santa Fe Community College, Santa Fe, New Mexico. He later became a graduate teaching assistant in the Department of Anatomy and Cell Biology at the University of Kansas Medical Center, Kansas City, Kansas.

He then became an instructor of biological sciences at Johnson County College in Overland Park, Kansas, and later worked as an adjunct instructor and research assistant at the University of Kansas Medical Center. He served as both an assistant and associate professor at Des Moines University, and then as associate professor and Director of Neuroanatomy at Lake Erie College of Osteopathic Medicine.

Dr. Purcell also worked as director of medical neuroscience and associate professor of basic medical science at the University of Missouri-Kansas City School of Medicine in Kansas City. Just prior to joining UMHS, Dr. Purcell was interim chair and associate professor of anatomy at A.T. Still University in Kirksville, Missouri. He holds multiple teaching awards.

Dr. Purcell's research has focused on interactions between the nervous and immune system. This research first helped to establish the link between stress and immune suppression, and later demonstrated the ability of increased vagal activity to decrease the production of hyperinflammatory cytokines. He was a founding member of the Psychoneuroimmunology Research Society. He was a member of the State Anatomical Board of the State of Missouri and is a member of the American Association of Clinical Anatomists.

## Sudhir Ambati, M.B.B.S., M.P.H.

#### Course Director of Epidemiology and Biostatistics, Associate Professor of Preclinical Science

Dr. Sudhir Ambati earned his M.P.H. from Deakin University in Australia, and he received his M.B.B.S. from NTR University of Health Sciences in India.

Dr. Ambati practiced in India and the Caribbean. Before joining UMHS, he was the course director of epidemiology at Saba University School of Medicine in Saba, Dutch Caribbean, where he also worked in the Department of ICM and taught doctor-patient relationship courses.

During his stay in Saba, Dr. Ambati worked with the Body, Mind and Soul organization, which conducts public health campaigns on many Dutch Caribbean islands. He orchestrated a number of health education programs that created awareness of chronic medical conditions in the Saba community.

Dr. Ambati also collaborated with Saba University and various secondary schools of the Dutch Caribbean islands to host regular sessions for students on topics such as controlling mosquito-borne infections, sexually-transmitted diseases, and nutrition and diet.

## Jiji Aravindakshan, M.D., M.B.B.S.

#### **Associate Professor of Physiology and Pathology**

Dr. Jiji Aravindakshan received her M.D. in physiology from Sree Siddartha Medical College, Timkur, India and Bachelor of Medicine and Bachelor of Surgery (M.B.B.S.) from Mysore Medical College, Mysore, India.

She started her teaching career in 2010. Dr. Aravindakshan worked as assistant professor for three years in the Department of Physiology in Sree Gokulam Medical College, Trivandrum, Kerala, India. Then in 2014, she joined St Matthews University, Cayman Island as assistant professor in the Department of Physiology and Pathology. She was promoted to assistant dean of academic affairs and was involved in policy and procedural matters regarding exams and other academic matters. Dr. Aravindakshan was the AHA Training Center coordinator at St. Matthews for conducting basic life sciences classes.

Dr. Aravindakshan joined UMHS in July 2019 as associate professor in the Department of Pathology.

## Norma Ann Celestine, M.L.S., B.A., A.H.I.P.

## Director of Library and Educational Applications, Assistant Professor of Library Research

Professor Norma Ann Celestine directs all daily library and exam center operations, and strives to keep UMHS in step with advances in library science, medical information resources and technology, computerized assessment, and educational technologies.

She earned an M.L.S. and a B.A. from the University of British Columbia in Vancouver. Prior to joining UMHS in June 2006, Professor Celestine directed operations for the HealthLink Services-Research Services Department at the Kitchener Public Library in Kitchener, Ontario. She also held other positions, including assistant director of library services at St. George's University School of Medicine in Grenada, director of library services at Arusha International Development Resource Centre in Calgary, Alberta, and library director at University of the West Indies, Extra-Mural Department in St. George's, Grenada.

## Douglas A. Cotanche, Ph.D.

#### Professor of Anatomy, Course Director of Human Anatomy

Dr. Cotanche received his Ph.D. in anatomy in 1983 from the University of North Carolina and pursued a Postdoctoral Fellowship with Lewis Tilnev in Cell Biology at the University of Pennsylvania from 1983-1985. His first faculty position was in the Departments of Otolaryngology and Anatomy at the Medical University of South Carolina from 1985 to 1987. In 1987, he moved to Boston, where he was in the Department of Anatomy and Neurobiology at Boston University School of Medicine for 10 years before moving to the Otolaryngology Department at Boston Children's Hospital and Harvard Medical School in 1998. He was the Research Director of Otolaryngology at Children's Hospital and taught human anatomy in the Harvard-MIT Division of Health Sciences and Technology. He received the 2007 Award for Excellence in Teaching at Harvard Medical School. In 2008, he returned to BUMC with a faculty appointment in the Department of Otolaryngology. From 2010 to 2013, he was a visiting scientist in the Harvard NIHL Research Group at the Harvard School of Public Health studying therapies to prevent hearing loss in the military. In 2013, he received a special teaching award for his dedicated service to the human anatomy course in the Harvard-MIT Division of Health Sciences and Technology. From 2013 to 2015, he was an associate professor of anatomy & developmental biology at the UMass Medical School in Worcester, MA, where he directed the Development, Structure and Function course. In 2015, he moved to the University of Illinois at Chicago where he was research assistant professor in the Department of Anatomy & Cell Biology and taught anatomy & neuroanatomy to medical students, dental students, graduate students and Master's students in biomedical visualization. He received two Golden Apple Awards for outstanding teaching in gross anatomy and neuroanatomy. In 2021, he relocated to Barbados, where he served as an associate professor of medical sciences at Ross University School of Medicine and taught gross anatomy and neuroanatomy.

Dr. Cotanche had an active NIH-funded research lab for over 30 years, where his work focused on the development and regeneration of hair cells and the tectorial membrane in the avian and mammalian cochlea. He trained numerous graduate students, medical students, and postdoctoral fellows in his lab. In 1985, he co-discovered the regeneration of cochlear hair cells in the avian ear after sound damage that led to a recovery of patients' hearing. He has continued his research on regeneration and has been a prominent force in the drive to develop hair cell regeneration as a potential treatment for sensorineural deafness. He has published over 80 peer-reviewed articles, book chapters, and reviews over his research career.

## Gareth Davies, Ph.D.

## Course Director of Immunology, Professor of Molecular Sciences

Dr. Gareth Davies grew up in Wales. He received his bachelor's degree in biological sciences from the University of Plymouth, UK. He then completed his Ph.D in human molecular genetics from the University of Cardiff in the UK. Dr. Davies has held Post-Doctoral and Fellowship positions at the University of Oxford, the National Cancer Institute of the NIH, and the Medical College of Wisconsin.

He has held faculty positions at South Dakota State University, where he was a teacher of the year, the University of South Dakota School of Medicine, and as a visiting professor at the Vrije University in Amsterdam in the Netherlands.

In 2007, Dr. Davies was a co-founder of the Avera Institute of Human Genetics in Sioux Falls, South Dakota, where he served as scientific director and then chief scientific officer until 2020. His research has resulted in the publication of over 100 peer-reviewed manuscripts in journals which include *Science. Nature and Nature Genetics*.

## Adegbenro O. J. Fakoya, Ph.D. (PMR), M.B.B.S., M.Sc., M.B.A., P.G.Dip.

#### Director of the Accelerated Review Program, Course Director of Histology, Associate Professor of Anatomy

Dr. Adegbenro graduated from the Premiere Medical University (University of Ibadan, Nigeria). He worked for many years as a general physician, then site coordinator and the clinical specialist on the antiretroviral therapy for the International Center for AIDS Care and Treatment Programs (ICAP), affiliated with the School of Public Health (Columbia University, U.S.).

Later in his career, he was a teaching and research fellow at the Department of Anatomical Sciences at St. George's University School of Medicine (Grenada). In the last five years, he was honored for his hard and successful work as the associate professor of anatomical sciences, course director of histology and cell biology, and faculty advisor to several organizations including the American Medical Students Association (AMSA). He was also member and chair of several committees, and the dean of student affairs at the All Saints University (Dominica). As an avid learner and researcher, he obtained his M.S. in stem cells and regeneration at the University of Bristol, one of the top universities in the United Kingdom, as well as, a post-graduate diploma in echocardiography from the University of Vienna (Austria), and a Fellowship in Molecular Biology/Gene editing/CRISPR-Cas9 techniques from the University of Verona (Italy).

He currently holds an M.B.A. with specializations in healthcare, hospital management, and clinical research management, and is currently pursuing a post-graduate certificate in genetics and genomics at the Stanford University (USA).

His successful performance on the USMLE and AMC examinations has also enhanced his active involvement in teaching and preparing students for the USMLE and other medical exams. His teaching style has earned him several student awards, such as: lecturer of the semester, outstanding teaching, best lecturer, two hours of learning and fun, and supportive lecturer, among many others.

He has published and reviewed several papers in high-impact journals indexed/abstracted in PubMed, is also currently an academic editor to a peer review journal. His research interest is largely in the field of cardiovascular anatomy, biologics and regeneration. He is an instructor for the American Heart Association (AHA) and is a member of the International Society of Stem Cell Research (ISSCR).

## David L. Felten, M.D., Ph.D.

## Associate Dean of Clinical Sciences, Professor of Neurosciences

Dr. David L. Felten is a neuroscientist whose contributions helped establish the fields of neural-immune signaling, and psychoneuroimmunology as a foundation for the physiological understanding of complementary and integrative medicine. He received a B.S. from Massachusetts Institute of Technology, and an M.D. and Ph.D. in anatomy/neuroscience from the University of Pennsylvania School of Medicine.

Dr. Felten is chairman of the board of Clerisy Corp., a biotech corporation in Pittsford, NY. He previously served as vice president for research and medical director of the Beaumont Research Institute in Royal Oak, MI, and dean of the School of Graduate Medical Education at Seton Hall University in South Orange, NJ.

At the University of Rochester School of Medicine & Dentistry, he served as the Kilian J. and Caroline F. Schmitt Professor, chair of the Department of Neurobiology & Anatomy, and director of the Markey Charitable Trust Institute for Neurobiology of Neurodegenerative Diseases and Aging.

For his pioneering findings in neural-immune interactions, Dr. Felten received the John D. and Catherine T. MacArthur Foundation Prize Fellowship. He was also twice nominated for a Lasker Prize. Dr. Felten is one of only a handful of researchers ever to receive two 10-year, peer-review-based MERIT awards from two separate Institutes (Aging and Mental Health) at the National Institutes of Health, which provides research support for an extended period to proven investigators whose work has had extraordinary importance or impact.

Dr. Felten is the author of over 200 peer-reviewed publications, most of which focus on links between the nervous system and immune system. He has also given more than 100 major addresses and presentations at national and international symposia and scientific meetings, including many prestigious named lectureships. He is the lead author of the major revisions to the highly acclaimed *Netter's Atlas of Neuroscience*, 3rd edition, 2016, and Netter's Neuroscience Flash Cards, 3rd edition, 2016.

## Ruth FitzGerald, M.A.

#### **Director of Counseling Services**

Ruth is from Ireland and completed her studies at Kingston University, UK. She joined UMHS in November 2021 as Director of Counseling Services.

Prior to joining UMHS she worked as Director of the Centre for Therapeutic & Reflective Writing in Ireland where she trained Counselors in Therapeutic Writing.

Ruth has a deep interest in Cross Cultural Psychology and has worked with international students throughout her career.

Her previous posts include Head of Wellbeing & Counseling at Aiglon College, Switzerland; Assistant Professor Education Enhancement & Counselor at American University of Antigua School of Medicine and Director of The Coaching Psychology Unit at Bahrain Polytechnic University.

Her interest in Cross Cultural Psychology led her to conducting a long-term research project on Culturally Sensitive Counseling in Education. Ruth also has an interest in Humanistic, Jungian, Evolutionary and Existential Psychology.

## Lata Gowda, M.P.T., B.P.T., B.A.

#### **Human Simulation Coordinator**

Lata Gowda comes with more than 10 years of experience in the areas of simulation and standardized patient programs. She received her Bachelor of Physiotherapy in 2000 from Jawaharlal Nehru Medical College in Belgaum, India, and went on to work in Manipal University as a pre-med instructor and anatomy lab demonstrator.

Between 2003 and 2006, Gowda earned a Master of Physiotherapy with a specialization in orthopedic and sports medicine from S.D.M. College of Physiotherapy in Dharwad, India.

She then joined St. Matthew's School of Medicine, Grand Cayman in 2006 as coordinator for the clinical skills lab, simulation, and standardized patient program. She joined Ross University in the Bahamas in 2009 as a simulation coordinator, and then moved to the Dominica campus to teach with the cardiopulmonary simulator, Harvey, for more than two years. Later, she worked for a standardized patient program.

In May 2015, she joined UMHS as human simulation coordinator. She is a member of the Association of Standardized Patient Educators and Society for Simulation in Health Care.

## Veerabhadra Gowda, M.B.B.S., M.D., D.C.C.P.

#### Professor of Pharmacology, ICM, and Physical Diagnosis

Dr. Veerabhadra Gowda joined UMHS in 2015. He holds an M.B.B.S. from Sri Devaraj Urs Medical College in India, and an M.D. from Kasturba Medical College in Manipal. He started teaching in 1997, after working for two years in a primary health center. Early in his career, Dr. Gowda taught at Melaka Manipal Medical College in Malaysia, St. Christopher School of Medicine in the United Kingdom, and St. Matthew's University School of Medicine in Grand Cayman.

In 2009, Dr. Gowda joined Ross University School of Medicine in the Bahamas to develop the progressive academic education program, the blend of TBL and case-based learning. He also taught pharmacology and introduction to clinical medicine. In 2010, he moved to the Ross campus in Dominica to facilitate the Academic Success program in the Center for Teaching and Learning, where he helped students with learning issues. His research and publications are focused on pharmacological topics and medical education.

His special interest is in medical education and helping students with learning issues.

## Cavelle Hobson, M.D.

#### **Clinical Assistant Professor of Medicine**

Dr. Cavelle Kelsick Hobson received her primary and secondary education at Holy Name Convent in Trinidad. She obtained her GCE A levels in science and was awarded the Island Open Science Scholarship becoming the first female to gain this distinction. She subsequently spent a year doing research at TRVL (now CARPHA) on Dengue serotypes using a rat model to produce specific antibody.

She obtained her undergraduate education at Harvard University, graduating with a BA in Biochemistry, Magna cum Laude, Phi Beta Kappa. Her research experience at Harvard included a summer internship with Dr. Edward Kass, Director of the Channing Research Labs, Harvard Medical School. The research looked into the effect of Mycoplasma infections on the outcome of pregnancy. Her undergraduate thesis was supervised by Dr. William Beck, Professor of Hematology, Massachusetts, General Hospital, on "The metabolism of Vitamin B12".

Based on her academic standing in her graduating class, she was awarded the Sheldon International Traveling Fellowship for a year of travel and study, becoming one of two of the first female students at Harvard University to receive this award. During the fellowship year, she attended Liverpool School of Tropical Medicine, Liverpool, England. She then travelled through East and Southern Africa. In Tanzania, she visited rural health centers.

She graduated from Harvard Medical School and then completed a Residency program in Internal Medicine at Tufts New England Medical Centre, Boston, Massachusetts. She returned to Trinidad and worked as a Registrar/Consultant in Internal Medicine at the Port of Spain General Hospital. Following her marriage, she has worked as internal medicine consultant at JNF Hospital, St. Kitts.

## John Holley, M.D., Ph.D.

#### **Assistant Professor of Anatomy**

Dr. John A. Holley is an assistant professor in the anatomy department at the University of Medicine and Health Sciences (UMHS) in St. Kitts. He has been working in the Caribbean for three years teaching gross anatomy in lectures and the cadaver laboratory. His expertise extends to other areas of the basic anatomy sciences of embryology, histology and neuroscience. He is also a member of the basic clinical education department.

Dr. Holley has both a Ph.D and an M.D. degree. His education includes B.S. and M.S. degree from Colorado State University. He obtained a Ph.D degree in anatomy from Case Western Reserve University. He completed postdoctoral research tenures in Heidelberg University, Germany and the department of neurology at Yale University. He published 12 full length research articles before entering medical school.

Dr. Holley subsequently obtained an M.D. degree from the University of Vermont. He completed his residency in family practice in lowa and then began practice in small towns in Utah, Arizona and Idaho. After practice family and ER medicine, he returned to teaching. He has taught anatomy and physiology in Gaziantep (Turkey), Batumi (Georgia), Northern Kentucky University, and at the Medical University of the Americas (Nevis). His hobbies include playing guitar, bike riding and snorkeling.

## Neilal Isaac, M.D., M.M.Ed.

## Assistant Professor, Pre-clinical Sciences and Simulation Lab Director.

#### **Course Director of Evidence Based Medicine**

Dr Neilal Isaac is a medical doctor from Grenada. She earned her medical degree from St. George's University- Grenada, along with a Diploma in Higher Education in medical sciences (with distinction) from the University of Northumbria in Newcastle- England. Dr. Isaac has also completed a master's degree in medical education from the University of Dundee- Scotland and a certificate in Executive Leadership for Healthcare Professionals from Cornell University- USA. Her academic interests include enhancing learning and supporting student wellness through strategic curriculum design for inclusive education and coaching in academic medicine.

Before joining the faculty at UMHS, Dr. Isaac worked at St. George's University in the Department of Anatomical Sciences. While working at St. George's University, she also became an instructor in the American Heart Association's Basic Life Support and Advanced Cardiac Life Support Courses. She has also completed several educational certificate programs in University Teaching offered at St. George's University, including: Scholarly Foundations in Teaching and Learning; Research in Teaching and Learning; and Learning in Teaching and Learning.

## Anoop Kumar Jalan, M.D., M.B.B.S.

#### Professor of Pathology, Professor of Microbiology

Dr. Anoop Kumar Jalan earned his M.D. in pathology from the Kasturba Medical College at Deemed University in India. He received his M.B.B.S. degree from J.J.M. Medical College in Karnataka, India. At the beginning of his medical education career, Dr. Jalan was a tutor in pathology and microbiology at Kasturba Medical College in Manipal, India. He also conducted basic laboratory sessions in medical microbiology for medical and dental undergraduates, and reported histopathology, cytology, and hematology specimens under supervision.

Dr. Jalan was later actively involved in independent reporting of histopathology, cytology, and hematology specimens at Manipal Teaching Hospital at the Manipal College of Medical Sciences in Nepal. Dr. Jalan also worked as an associate professor of pathology at Saba University School of Medicine in Saba, Dutch Caribbean.

Immediately prior to joining UMHS, Dr. Jalan was chair of the Department of Pathology and Microbiology and a professor of pathology at St. Eustatius School of Medicine in St. Eustatius, Netherlands Antilles.

In addition to his teaching responsibilities, Dr. Jalan was the course director for Pathology I and II, chair of the Student Grievance Committee, chair of the Curriculum Committee, and faculty advisor for the American Medical Student Association (AMSA).

## Yogitha Jalan, B.Sc., M.Sc.

#### Instructor of Microbiology

Professor Yogitha Jalan holds a master's degree in medical microbiology from Manipal University, India. She worked as a clinical microbiologist and lecturer at the Manipal College of Medical Sciences, Nepal for some years before coming to the Caribbean in 2005. She worked at the Saba Medical School and St. Eustatius Medical School before joining UMHS.

## Molly Johannessen, Ph.D.

#### Director of Education and Teaching, Director of the Biological Basis of Clinical Medicine course, Associate Professor of Physiology

Dr. Molly Johannessen comes to UMHS from Kaplan Medical, where she served as a medical learning consultant working with various institutions supporting learning gains using Kaplan resources. Her passion is learning and helping medical students reach success. She continues to serve as part of the physiology faculty for Kaplan.

Dr. Johannessen received her Ph.D. and M.S. in physiology from the University of Wisconsin – Madison, an M.S. in Higher Education from Walden University and her B.A. in chemistry from Lawrence University. Her passion for education started as an HHMI Scientific Teaching Fellow at the University of Wisconsin – Madison. Her experiences and contributions to the field are rooted in the idea that learning can be enhanced and knowledge retention increased utilizing educational theory to drive medical education. This evidence-based approach

can be applied to student learning, curriculum development, and faculty professional development. Her passion for learning and her enthusiasm for life have driven her involvement with learners in all aspects of medical education including mental health and wellness amongst medical students and faculty, leadership and learning, and enhanced learning opportunities to help at-risk students.

Dr. Johannessen has worked with various medical institutions including osteopathic, allopathic, and foreign-medical graduates. At UMHS, she serves as the Director of Education and Teaching as well as associate professor of physiology.

### Frank Jones, Ph.D.

#### **Professor of Pharmacology and Molecular Science**

Dr. Frank E. Jones obtained his Ph.D in medical sciences from McMaster University in Hamilton, Ontario, Canada where he studied Herpes Simplex Virus. Dr. Jones conducted his Postdoctoral Research Fellowship in the Department of Pathology at Yale University School of Medicine, where he started his career in animal models of breast cancer and the development of novel breast cancer therapeutics.

In 2001, Dr. Jones joined the Department of Biochemistry at Tulane University School of Medicine. During his nearly 20 years at the Tulane University School of Medicine, Dr. Jones conducted research on developing novel biomarkers and targeted therapies for patients with therapeutic refractory, metastatic, breast cancer. He was awarded multiple NIH RO1 grants for 15 years of continuous NIH funding and eight three-year Department of Defense Breast Cancer grants. His publications have been featured on the covers of *Developmental Cell, Cancer Research, and The Journal of Cell Biology.* For his continued and significant contributions to basic and clinical cancer research, Dr. Jones was promoted to the prestigious Tulane University School of Medicine Endowed Chair of Cancer Research.

As the principal investigator of an active NIH funded research laboratory, Dr. Jones also maintained a commitment and dedication to excellence in teaching. His medical education teaching responsibilities at Tulane University School of Medicine included pharmacology, molecular biology of cancer, gross anatomy, and cell and molecular biology. He received multiple teaching awards for his efforts including the Robert J. Glaser Distinguished Teacher Award, Award for Professor of the Year; Dean's Endowment for Excellence in Teaching, and Award for Medical School Course of the Year.

Always ready for a new challenge, Dr. Jones joined the faculty at the University of Medicine and Health Sciences in 2020 as a professor of pharmacology and cell biology.

## Annette Kirchgessner, Ph.D.

#### **Associate Professor of Anatomy**

Dr. Kirchgessner received a B.A. from Hunter College, City University of New York (CUNY). She earned her M.A. in neuropsychology from Queens College, CUNY and her Ph.D. in neuroscience from the State University New York, Downstate Medical Center. She later pursued her post-doctoral training in the Department of Anatomy and Cell Biology at the College of Physicians and Surgeons, Columbia University in New York, where she began her career as an assistant professor and established a productive research program on the neurobiology of the enteric nervous system and its role in inflammatory bowel disease.

Teaching is a passion for Dr. Kirchgessner. Courses she has taught to medical and graduate students (physician assistants, physical therapists, athletic trainers, occupational therapists) since 2011 include: gross anatomy, endocrinology, and scientific inquiry. In her most recent position before joining UMHS St Kitts, Dr. Kirchgessner was an associate professor at the School of Health and Medical Sciences Seton Hall University, adjunct associate professor at the Hackensack Meridian School of Medicine, and adjunct professor and director of lower extremity anatomy at the New York College of Podiatric Medicine.

In addition to Dr. Kirchgessner's teaching experience, she led a productive and well-funded (NIH, American Diabetes Association) research program in enteric neurobiology which has resulted in over 50 publications in internationally renowned peer-reviewed journals. The neurocircuitry of the enteric nervous system (ENS), or intrinsic nervous system of the bowel, controls how the gut reacts to an ingested meal, and regulates the processes of digestion, nutrient absorption, and waste elimination. During inflammation, such as that which occurs in inflammatory bowel disease (IBD), various features of gut function, including motility, secretion and sensitivity are altered. As the ENS regulates all of these functions, it is not surprising that inflammation affects enteric neurons and neurodegeneration occurs in IBD. Dr. Kirchgessner's expertise in enteric neurobiology led her to briefly leave academia and become the Head of the Gastroenterology Department at GlaxoSmithKline in the United Kingdom.

Although Dr. Kirchgessner joined UMHS as a full-time faculty fairly recently (December 2020), she has been a visiting professor in anatomy at UMHS for over eight years. Dr. Kirchgessner has a passion for underwater photography and when she is not teaching anatomy, she can be found snorkeling around the island.

## Mohan Kumar, M.D., M.B.B.S.

## Assistant Dean of Student Affairs, Department Chair, Course Director, Professor of Preclinical Science

Dr. Mohan Kumar earned his M.B.B.S. from JSS Medical College, Mysore University in Mysore, India. He was awarded an M.D. in forensic medicine from Kasturba Medical College, Manipal University, India. After receiving his M.D., Dr. Kumar began his career as an assistant professor at Manipal University, where he not only taught medical students, but also conducted forensic autopsies, examined skeletal remains, visited crime scenes, and attended court to give his expert opinion. Dr. Kumar was also the Honorary Forensic Medicine Consultant for the government and assisted in crime investigations.

Dr. Kumar has been actively involved in medical education since 1997 in various capacities. He enjoys passing on his skills and knowledge to his students while always catching up on the latest developments in the field of medicine. His passion for teaching was fueled when Dr. Kumar attended a workshop on teaching, learning, and evaluation of medical students at Manipal University.

Prior to joining UMHS in 2011, Dr. Kumar served as an associate professor of pre-clinical sciences, teaching physical diagnosis and introduction to clinical medicine at St. Matthew's University, Cayman Islands. He also taught anatomy as an associate professor at American University of Antiqua.

Dr. Kumar has 17 publications to his credit in various international journals and websites, including PubMed. His case reports give an insight on various interesting cases he encountered during his practice of medicine.

Presently, he is the course director of physical diagnosis and associate professor of introduction to clinical medicine courses. Dr. Kumar has been actively involved in various committees including the Admission, Disciplinary, and Information Management committees. He has also served various medical associations, including the Surgical Society of SMU, and was faculty advisor for the American Medical Student Association (AMSA) at UMHS.

## Peter Lee, Ph.D.

#### Co-Director of Behavioral Science, Associate Professor of Behavioral Sciences

Dr. Peter Lee completed his Ph.D. at the University of Alberta in 2005. Since then, he has worked as an experimental psychologist at Bilkent University in Turkey, the Open University in the United Kingdom, and back at the University of Alberta in Canada. In the last five years, he has been a behavioral science educator in Sint Maarten and St. Kitts.

Beyond behavioral science, Dr. Lee's professional interests also include full-stack computer programming within experimental and educational contexts. With more than 25 years of experience in research methods, he is also a statistician who has conducted methodological consultancies with the Centers for Disease Control and Prevention in Atlanta, GA, and the Alberta School of Business in Alberta, Canada. Dr. Lee is a member of the American Psychological Association, the Society for Applied Research in Memory and Cognition, the Canadian Psychological Association, and the International Society for Infectious Diseases.

## Amanda Massicott, M.A.

#### **Counselor and Assistant Professor of Medical Education**

Amanda Massicott graduated with a Bachelor of Science (BS) in psychology with honors in 2007 from Midwestern State University (MSU), where she also earned her Masters of Arts (M.A.) in clinical psychology and counseling in 2014. Her practicum experience includes working as a student therapist at the MSU Psychology Clinic, and as an intern at the Red River Psychiatric Hospital, Wichita Falls, Texas.

Before joining the UMHS team in 2018, she worked as a consultant counselor within the Counseling Department at Ross University School of Medicine in Dominica, from 2016 to 2018. As a counselor, she provided counseling to medical students and faculty, and was also responsible for conducting ADHD assessments. Her experience also includes being employed at the Dominica State College since 2008 as a psychology lecturer. Her 10 years of experience as a lecturer has been instrumental in her current role as an assistant professor of medical education and student counselor here at UMHS. Additionally, Ms. Massicott serves as the accommodations officer, utilizing her clinical experience to assist students with disabilities in receiving special accommodations while studying at UMHS.

Ms. Massicott has an avid interest in research and has served as a facilitator for an HIV compliance research project initiated by the Sociology Department at MSU, and for Dominica's Country Poverty Assessment in 2009. She currently serves on the Ethics Committee of the Dominica Psychological Society and the Diversity and Inclusion Committee at UMHS. Her interests include cognitive behavior therapy, assessments of psychological disorders, and teaching.

## Thomas McCracken, Ph.D. (H.C.), M.S., M.S., B.E.

#### **Professor of Anatomy**

An internationally known medical illustrator, Professor Thomas McCracken brings his unique and exciting expertise in 3D computer imaging to our anatomy and physiology classes. He has illustrated over 200 journal articles and textbooks, and was also involved in a National Institute of Health project to construct the 3D interactive computer models that are used by most U.S. medical schools.

Professor McCracken received an M.S. in anatomy and physiology from the University of Michigan, along with an additional M.S. in biomedical illustration, and a B.E. in biology and education. In 1996, he received an Honorary Doctorate in clinical sciences from Our Lady of the Rosary University in Colombia.

Prior to joining UMHS, Professor McCracken taught at Colorado State University and the King Faisal Specialist Hospital and Research Center in Saudi Arabia. He is a member of the American Association of Anatomists, the American Association of Clinical Anatomists, the Association of Medical Illustrators, the Federation of American Societies for Experimental Biology, and the Health Science Communication Association.

## Prakash Mungli, M.D., M.B.B.S.

#### Dean of Student Affairs, Chair of Molecular Sciences, Course Director and Professor of Biochemistry

Dr. Prakash Mungli received his M.D. in biochemistry from Manipal University in India and earned his M.B.B.S. from Gulbarga University in India. Formerly a family physician, he has more than 14 years of experience in medical biochemistry education, and has been a popular professor at UMHS since September 2011.

During his time here, he has earned several institutional awards, including Outstanding Professor of the Year and Most Inspiring Professor. Prior to joining UMHS, Dr. Mungli taught biochemistry, molecular biology, and genetics at St. Matthews University School of Medicine in the Cayman Islands.

Dr. Mungli uses creative teaching methods to make even difficult concepts easily understandable. He posts recaps of his lectures on YouTube and keeps students engaged through a Facebook group and blog called "Biochemistry Made Easy."

In addition to being a passionate teacher, Dr. Mungli is also actively involved in research. He has published 65 research papers in national and international indexed journals. His work has been cited in more than 50 indexed journals, and he has served as editorial board member and reviewer for six indexed journals. His work has also been presented at more than 20 national and international conferences. His current research interest is in medical education.

## Jagadeesh Nagappa, M.B.B.S., D.F.M.

#### **Associate Professor of Physiology**

Dr. Jagadeesh Nagappa holds a D.F.M. from the Royal College of General Practitioners in the United Kingdom and an M.B.B.S. from Bangalore University in India. For many years, Dr. Nagappa held positions in departments of physiology, biochemistry, and physical diagnosis at medical schools in the Caribbean and the United Kingdom. Before he started teaching, he practiced medicine in India and in the Caribbean. In his most recent position prior to joining UMHS, Dr. Nagappa was an associate professor in the Department of Physiology, course director of preclinical sciences, and course director of fundamentals of clinical sciences at St. Matthew's University School of Medicine in Grand Cayman.

## Shannon Nanna, Psy.D.

#### Associate Professor of Behavioral Science and Preclinical Sciences

Dr. Shannon Nanna received her PsyD degree from Pacific University in Forest Grove, Oregon, and worked for several years within the HIV community, providing clinical care, conducting community services, and sponsoring grants during this time. Dr. Nanna did her internship at Color-Goldwater hospital in New York City, expanding her clinical work and expertise as a health psychologist. She completed her fellowship at the Siteman Cancer Center at Barnes Jewish hospital, where she continued working for several years specializing in psycho-oncology. Recently, Dr. Nanna's clinical work extended to working in New Zealand at Massey University as a clinical psychologist for individuals with a variety of health issues, and served as supervisor and hospital liaison. She holds a clinical psychology license to practice in New Zealand as well as in the state of Missouri.

Dr. Nanna's teaching experience for medical schools include being an assistant professor at Washington University School of Medicine, where she served as supervisor to doctoral psychology students, and taught ethics/communication/health policy to first—and second-year medical students. Dr. Nanna was a Peace Corps Volunteer early on serving in Antigua, and she was thrilled to return to the Caribbean working at the American University of Antigua, and then at American University of the Caribbean in Sint Maarten teaching behavioral science and clinical skills.

## Akintola Odutola, B.Med.Sci., M.B.,B.S., Ph.D., FRCSEd

#### Professor of Anatomy, Course Director of Neuroscience

Dr. Odutola received all his academic diplomas from the University of Ibadan, Ibadan, Nigeria with specialization in anatomy/neuroscience and his specialist professional (residency) training in general and neurological surgery in Area Health Hospitals (as they were then known) in Newcastle-Upon-Tyne, United Kingdom.

As an academician, he has broad foundational research training in the fields of embryonic neural cell culture, histochemistry, electron microscopy and neuropharmacology (microintophoresis). His post-doctoral training was in a world class and leading Swedish laboratory collaborating in their seminal ongoing study of the functional roles of the descending brainstem reticulospinal pathways on spinal motor neurons and consequentially the regulation of muscle tone, posture and movements. His earlier research interests and publications were focused on the somatosensory system and how it interlinks with cerebral control of motor movements.

His teaching career and academic leadership appointments span through several decades across multiple continents. He is a member of several neuro-related societies and serves as a reviewer to few academic publications.

## Alfred Roy, M.D., M.B.B.S.

#### Chair, Course Director, and Professor of Pathology

Dr. Alfred Roy completed his basic medicine training and a residency in pathology at KMC Manipal in 1993. He then joined the University of West Indies twinning program at Manipal. The UWI program is a PBL-based curriculum for basic sciences.

In January 2000, he was selected as external examiner for UWI campus (St. Augustine) in Trinidad. In November 2000, Dr. Roy earned a two-year sabbatical posting as junior registrar at Princess Margaret Hospital, Nassau, the Bahamas. There, he assisted the Department of Pathology with surgical pathology, cytopathology, and autopsies while completing his training with the College of American Pathologists for gynecologic and non-gynecologic cytopathology. He was also involved with the clinical program of UWI in Princess Margaret Hospital.

In 1997, Dr. Roy was attached to another twinning program with Malaysia (Melaka University). He continued to be a faculty member of the Melaka twinning program after completing his two-year posting in Nassau. This program, too, was a PBL-based curriculum.

Dr. Roy also was appointed to the Medical Education Department in 1997, where he was involved in designing the PBL curriculum in pathology. He has conducted conferences and seminars in higher education for medical, dental, nursing, pharmacology, and engineering colleges in India.

Dr. Roy was attached to the KMC hospital as a surgical pathologist and cytopathologist. He was appointed unit chief for surgical pathology in 2005. Dr. Roy underwent training in dermatopathology and helped in histopathological and immunofluorescence reporting of skin biopsies.

During his tenure in Manipal, Dr. Roy taught pathology for medical, dental, and nursing students. In 2006, Dr. Roy joined St. Matthew's University School of Medicine, Grand Cayman. He was appointed as curriculum committee chairman and in charge of excellence in medical education. He conducted the monthly clinico-pathological (CPC) seminars.

In 2011, Dr. Roy returned to Manipal University as professor of pathology for the AUA Antigua program. In May 2013, Dr. Roy joined UMHS.

## Bichara S. Sahely, B. Sc. (Hons), M.D..M.B.B.S., DM (UWI)

#### **Clinical Assistant Professor of Medicine**

Dr Bichara Sahely was born in St. Kitts. He was the St. Kitts and Nevis State Scholar in 1988. He obtained his BSc (Hons) in biology from Dalhousie University in Canada in 1992. He completed his MBBS in 1997 and his DM (internal medicine) in 2003 at the Mona Campus of the University of the West Indies in Jamaica. Six months of his electives in 2002 were spent at the University of Toronto in Canada in rheumatology, cardiology and nephrology.

He has returned home to serve his country as a consultant physician in internal medicine at the Joseph N. France General Hospital since 2003. He also has been in private practice since 2004.

His recent interests revolve around the social, economic and political determinants of health and disease and how to update our biopsychosocial model of medical practice to be fully life-coherent with the protection of our social and planetary life support systems. The base of this exploration is the life-value onto-axiology framework which provides a more comprehensive and coherently inclusive taking into account of all of the life-value determinants of healthy developments at all levels of life organization.

## George H. Shade Jr., M.D.

## Dean of Clinical Science, Chair of OB/GYN, Professor of Clinical Medicine

Dr. George Shade is a board certified obstetrician-gynecologist with an M.D. from Wayne State University School of Medicine. He is an associate professor at Wayne State University School of Medicine, Michigan State COM, and UMHS. Dr. Shade brings his experience as the director of resident education for St. John Health Detroit Riverview Hospital, chief of OB/GYN for several major hospitals in the Detroit Metropolitan Area, specialist in chief for the entire Detroit Medical Center, and chief medical officer at major hospitals in Michigan, Indiana, and Detroit Community Health Connection, Inc. He has also served as chief quality officer for the entire Detroit Medical Center.

Involved in clinical research throughout his career, Dr. Shade has several publications, and has lectured extensively on a local and national level. His primary area of research has been endometriosis, but he also developed programs in minimally invasive surgery for St. John Health and the Detroit Medical Center.

Dr. Shade has received numerous civic service awards and academic awards for scholarly achievement and teaching. He has served on state and local boards, hospital boards, and committees. He has also been very active in the state and county medical societies in Michigan.

## Pinakini K. Shankar, M.D., M.B.B.S.

#### **Course Director and Professor of Pharmacology**

Dr. Pinakini K. Shankar received her M.D. in pharmacology from Kasturba Medical College at Manipal University in India. She also earned an M.B.B.S. from JSS Medical College at Mysore University in India.

Her early medical-education career featured teaching positions in the Department of Pharmacology at Kasturba Medical College, and in the Department of Pharmacology at the American University of Antigua School of Medicine in Antiqua.

Just before joining UMHS, Dr. Shankar was an associate professor and course director in the Department of Pharmacology and Clinical Therapeutics at the St. Matthew's University School of Medicine in Grand Cayman, where she taught, evaluated, and mentored students in preparation for the USMLE.

Dr. Shankar has been instrumental in initiating and serving as the principal investigator for phase III clinical trials. She also has research publications in reputed indexed medical journals and is an author for Cochrane Reviews. Dr. Shankar has also been a guest lecturer and presented at a variety of conferences and symposia.

## Rania Siam, M.B.B.Ch., Ph.D.

#### **Course Director and Professor of Microbiology**

Dr. Rania Siam holds a Ph.D. in microbiology and immunology from the faculty of medicine, McGill University in Montreal, Canada. She earned a MBBCh from Ain Shams University, Faculty of Medicine. Dr. Siam held several post-doctoral positions in the McGill Oncology Group, Royal Victoria Hospital in Montreal, Quebec, Canada. She also held positions at the Salk Institute for Biological Studies, Molecular and Cellular Biology Laboratories, and The Scripps Research Institute, Department of Molecular and Experimental Medicine in La Jolla, CA. She was a visiting scholar at the Scripps Institution of Oceanography, in the U.S., and the Berlin Center for Genomics in Biodiversity Research and Technische Universität Berlin in Germany.

Before joining UMHS, Dr. Siam was the chair of the Biology Department at the School of Science and Engineering, The American University in Cairo. Siam served as the chair of the Biology Department from 2012–2018. During her tenure as biology chairwoman, and with the Biology Department faculty, they managed to update the biology curriculum, applied for accreditation, reassessed the program and introduced two new concentrations (molecular and cell biology and marine biology) and two minors (bioinformatics and biomedical). Before Dr. Siam stepped down as department chair, the department was granted natural science accreditation through the Accreditation Board for Engineering and Technology (ABET), until September 30, 2024. Prior to this, she was the founding director of the Biotechnology Graduate Program from the time it was founded in 2007 until 2012. Dr. Siam has also taught undergraduate and graduate courses in microbiology and molecular and cell biology.

Dr. Siam's research interests lie in exploring the environmental communities residing in harsh environments in the Red Sea to discover drugs and enzymes with unique pharmaceutical and biotechnological applications. Over the last 10 years, she managed to secure over \$7 million USD in external funding to support her group, The Red Sea Marine Microbiology Research Group, and establish a molecular biology and genomic research facility. Dr. Siam served as thesis supervisor for over 35 M.Sc. biotechnology students and six Ph.D. biotechnology students. She has published over 45 original peer-reviewed science articles.

## Patrice Thibodeau, M.D.

## Assistant Clinical Dean, Director of Introduction to Clinical Medicine II

Dr. Patrice Thibodeau earned her M.D. at the University of Chicago, Pritzker School of Medicine. She did a four-year residency in internal medicine and pediatrics at the University of Rochester, and spent an additional year as the internal medicine chief resident before opening up a practice in Webster, NY. In 2001, Dr. Thibodeau moved from New York back to her native state of Maine, where she spent 13 years working at Maine Medical Center as the director of the Internal Medicine-Pediatrics Residency Program. She was also a teaching physician for residents and medical students in the outpatient clinics, in the newborn nursery, and on the inpatient wards.

Dr. Thibodeau is certified by the American Board of Internal Medicine and the American Board of Pediatrics. She has a special interest in primary care of both adults and children, as well as in teaching. Dr. Thibodeau is currently the director of the fifth semester Introduction to Clinical Medicine course on the Maine campus.

## Donna Thompson, M.D.C.M.

#### Associate Dean of Clinical Sciences, Professor of Clinical Medicine

Dr. Donna Thompson is a member of the American Board of Internal Medicine. She earned her undergraduate degree from Colby College in Maine and received her M.D.C.M. from McGill University College of Medicine in Canada. She completed her internal medicine residency both in Canada and at the Maine Medical Center, in Portland, Maine, where she also completed a clinical fellowship and a research fellowship in oncology.

Dr. Thompson's extensive medical background includes positions as director of the Division of Oncology and chief of the Department of Medicine at Central Maine Medical Center. She also was the director of the Cancer Research Program at the Foundation for Blood Research in Maine.

Dr. Thompson's medical education background is just as extensive. She was an assistant in medicine at Tufts University in Massachusetts; an instructor in the biology of cancer at the University of Southern Maine; and a clinical preceptor and associate professor in the Department of Pharmacology at St. Matthew's University School of Medicine in Grand Cayman. She was also an associate professor in pre-clinical medicine and director of Introduction to Clinical Medicine, as well as the chief of clinical medicine in pre-clinical sciences at St. Matthew's.

## Luisa Veloz, M.D.

#### **Assistant Professor of Preclinical Science**

Dr. Luisa Veloz was born in the Dominican Republic. In 2000, she obtained a full scholarship from the MESCYT in the Dominican Republic for her outstanding high school performance to study medicine in ELAM (Escuela Latin-American de Medicine) La Havana, Cuba.

Dr. Veloz graduated with a Bachelor of General & Integral Medicine degree in 2009. After completing her studies in Cuba in 2010, she went to the Dominican Republic and completed the mandatory community service in her hometown, Barahona. Shortly after, she was attending the population of patients of the Jaime Sanchez Hospital, Barahona. She also was working in the emergency department of the private clinic Santo Thomas of the same city.

In 2011, when the Haiti earthquake occurred, she went to the Hospital General Melenciano in Jimani, closest to the earthquake catastrophe zone, and worked voluntarily with the doctors to treat the victims. In February of the same year, she was in charge of the rehabilitation center created by CEEDESUR for the recovery of Haitian victims. In this role, she looked after patients, ensuring they received ambulatory medical treatments and psychological sessions, and worked with the Dominican government to provide clothes and food for victims.

She started working in 2011 as a medical auditor of SENASA, as a supervisor for the 64 Health Center in the state of Barahona, taking care of monitoring the programs in cervical cancer, pregnancy, hypertension, diabetes, and tuberculosis.

Dr. Veloz then decided in 2013 to move to her husband's country and to improve her career furthermore in St. Kitts as an emergency doctor in the Joseph N France Hospital in St Kitts. During her time working at JNF, she realized her passion for teaching, and began working as a senior lecturer and course director at Windsor University. Dr. Veloz then decided to expand on her teaching career, joining UMHS as assistang professor of physical diagnosis and introduction to medical skills. She also involved in the University's Diversity and Inclusion Committee.

In addition to her roles at UMHS, Dr. Veloz is enrolled in a Master of Science program at the University of Michigan, and has completed a series of courses related to classroom diversity.

## Frank Wagner, Psy.D., M.A., B.S., B.B.A.

#### **Chair and Professor of Behavioral Science**

Dr. Frank Wagner is an experienced medical educator and administrator. For 23 years, he served as a senior administrator in mental health and substance agencies that provided clinical education to social work, psychology, and graduate-level students. Dr. Wagner came to the International University of Nursing (IUON), UMHS' sister institution, after holding the position of associate dean of student affairs at an international medical school.

At IUON, Dr. Wagner was dean of student services, where he focused on serving student, community, and government constituencies. He was instrumental in developing student leadership, implementing judicial affairs, and developing programs that brought cohesiveness to the student body.

In 2008, Dr. Wagner became assistant provost at UMHS. He played a key role in the introduction and expansion of UMHS' medical education program.

Dr. Wagner holds a Psy.D. from the International University for Graduate Studies, an M.A. in clinical psychology from Goddard College, a B.S. in psychology from Loras College, and a B.B.A. in management from Northwood Institute.

## Cameron Wilkinson, M.D., F.R.C.S.

#### **Clinical Professor of Surgery**

Dr. Cameron Wilkinson was born in Basseterre, St. Kitts. In 1982, he obtained the best 'A' level results in St. Kitts/Nevis, won the State Scholarship, and went on to study medicine at the University of the West Indies in Kingston, Jamaica. Dr. Wilkinson graduated with a Bachelor of Medicine and Bachelor of Surgery degree in 1989. He won the prizes for the most outstanding student in surgery and in medicine and therapeutics at The Queen Elizabeth Hospital in Barbados.

He was accepted into the general surgery residency program at Harlem Hospital in New York, where he completed the five-year surgical residency program in 1995, winning the Program Director's Prize for the most outstanding chief resident. He also obtained a Citation for Outstanding Service to the Greater Harlem Community, in recognition of his five years of dedicated service during his residency. He went on to complete a fellowship in critical care and surgical endoscopy at Harlem Hospital in New York, and then returned to St. Kitts to work in 1997. He is a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a Fellow of the Caribbean College of Surgeons.

Dr. Wilkinson has been practicing as a physician and surgeon in St. Kitts for the last 22 years. He is the Chief Surgeon and Medical Chief of Staff of the Health Institutes in St. Kitts, a past president of the Rotary Club of Liamigua, past President of the UWI Alumni Association, and the current President of the Caribbean College of Surgeons. He is also a clinical lecturer at the University of Medicine and Health Sciences.

Dr. Wilkinson has played a pivotal role in the development of several services at the Joseph N. France General Hospital, including The Emergency Medical Service, The Intensive Care unit, The Electrocardiography unit, and Surgical Endoscopy. He has also acted as Chief Medical Officer on several occasions.

His publications include "Melanosis Coli, A Cautionary Tale," "Colonoscopy Data in St. Kitts: Results and Comparison with Guidelines," and "Caribbean 'Subculture' is a Barrier to Effective Treatment of Persons with Diabetic Foot Infections."

## Dr. Edith Esparza-Young, Ed.D

## Associate Professor of Learning Development and Language Skills

Dr. Edith Esparza-Young earned a doctorate in bilingual education from Texas A&M Kingsville, the first university in the United States to offer a doctorate in this field.

Prior to joining UMHS in 2019, Dr. Esparza-Young served as an English language specialist for the U.S. Department of State and Georgetown University. The U.S. Embassy in Madrid joined other organizations to fund several grants so that she could provide training for American and Spanish Fulbright Scholars in English and Spanish.

The San Antonio Hispanic Chamber of Commerce selected her to be part of the Latina Leadership Institute in 2016. Her academic positions have included teaching graduate and undergraduate courses at the University of Texas at Brownsville and Texas A&M San Antonio. Leadership roles have included program coordinator for the Bilingual Education Program at Texas A&M San Antonio and co-teaching the inaugural freshman class with the president of the university. She is a certified teacher in Texas in the areas of English, Spanish, ESL, and bilingual education.

In addition to having 25 years of teaching experience, Dr. Esparza-Young is a native Spanish speaker. She has studied French, German and Russian. She serves as an editorial review board member for the *NABE Journal of Research* and *Practice* and *The International Journal of Community and Diversity*. She was the educational outreach coordinator for the San Antonio Book Festival in 2018.

## **Policies and Procedures**

## **Academic Policies**

The University of Medicine and Health Sciences publishes the UMHS Student Handbook of Policies and Procedures each semester. This information is provided to all incoming students and it is also available on the student portal. The UMHS Student Handbook supersedes information provided in this catalog, and the UMHS Student Handbook information on academic policies is binding upon all students. It is the responsibility of the student to be aware of all regulations contained in the UMHS Student Handbook and any changes or modifications. Only a brief overview of academic policies and procedures is contained in this publication.

## Registration of New Students

Students will pre-register for courses through the student portal at the designated time determined by the Office of the Registrar. At the beginning of each semester, all students must confirm their registration in person prior to the start of classes. Any specified documentation upon which the student's admission is contingent must be on file at that time. If essential documentation is not provided, the student will not be permitted to confirm registration and may be administratively withdrawn. Registration is not complete and enrollment is not official until tuition and fees are paid in full and confirmation is completed. Failure to make scheduled payments or arrange payments through the Office of the Bursar when they are due will result in cancellation of the student's registration. It is the student's responsibility to ensure that payment is received in the Bursar's office by the established due dates announced each semester. Questions regarding tuition and fees, payments, returned checks, late fees, refunds, etc., should be directed to the UMHS Office of the Bursar.

Students who register after the first day of classes are responsible for all prior materials and assignments presented in class. No student will be allowed to register after the close of registration, which is typically at the end of the first week of classes (see Academic Calendar on page 1). Students arriving after that time will be required to register for the subsequent semester.

## Grading

Basic Science Program: A passing grade of 70 percent (equivalent to a grade of C) is required in all courses. Any grade below 70 percent is considered failing (equivalent to a grade of F). Students must maintain a minimum cumulative grade point average of 2.0 in order to make satisfactory academic progress. Students who receive a grade of F in any course will be placed on academic probation. Failure to pass a repeated course with a grade of C or better is grounds for dismissal from the medical program. Maximum time frame for completion cannot exceed 150 percent of the required credits for graduation.

### **Grade Equivalent Grade QPA**

| LETTER GRADE | NUMERICAL GRADE | QPA       |
|--------------|-----------------|-----------|
| A            | 90 and above    | 4.00      |
| В            | 80–89           | 3.00-3.90 |
| С            | 70–79           | 2.00-2.90 |
| F            | 0–69            | 0.00      |
| P            | 70 and above    | 0.00      |
| I            |                 | 0.00      |
| W            |                 | 0.00      |

#### Preclinical/Clinical

| RESULT OF MEASURES:<br>(TOTAL POINTS DIVIDED BY 8)   | TRANSCRIPT<br>LETTER GRADE: | QUALITY<br>POINTS: |
|--|-----------------------------|--------------------|
| 3.70-4.00  | A                           | 4.00               |
| 3.30-3.69  | B+                          | 3.50               |
| 2.70-3.29  | В                           | 3.00               |
| 2.30–2.69  | C+                          | 2.50               |
| 2.00–2.29  | С                           | 2.00               |
| <2.00  | F                           | 0.00               |
| Absence of Log Book and/or Passing Core Subject Exam | I                           | 0.00               |
| Withdrawn  | W                           | 0.00               |
| Audit/Observation                                    | AU                          | 0.00               |
| No Show Failure                                      | NF                          | 0.00               |
| Not Attend Withdrawal                                | NW                          | 0.00               |

#### **Clinical Science Program**

Evaluations during the Clinical Science Program segment of the curriculum include an assessment of the ACGME Core Competencies, which are not only part of the student's mastery of course objectives, but also the characteristics considered desirable in a good physician. These competencies include problem-solving ability, industriousness, reliability, judgment, interpersonal relationships, professional skills, and motivation. Students who receive more than one failing grade in any required or elective clerkship are subject to dismissal.

#### **Failing Grade**

A student who receives a failing grade of F in any Basic Science course or clinical rotation must repeat the course and receive a passing grade in order to progress. A course for which an F is awarded is included in the term GPA and cumulative GPA (CGPA). When the student repeats the same course or rotation with a passing grade, the failing grade F will no longer be calculated in the CGPA. However, the grade of F will remain on the transcript and in the term of the GPA.

#### **Incomplete Grade**

An incomplete grade, I, signifies that not all required coursework was completed during the term of enrollment. The I grade is not calculated into the term GPA or the cumulative GPA at the time it is awarded. If the student receives an I, all required coursework must be completed on or before the first day of classes of the subsequent term. Students with incomplete grades will not be permitted to register for the next term until all requirements have been satisfied. If course requirements are not satisfied by the deadline date, the I grade will be changed to an F.

### **Semester Credit Hours**

#### **Basic Sciences Program**

One hour of classroom or direct faculty instruction over the course of a semester (15 weeks) equals one semester credit hour. The total Basic Science credit hours consist of 100 credits.

#### Fifth Semester (Maine)

One hour of classroom or direct faculty instruction over the course of a semester (15 weeks) equals one semester credit hour. The total credit hours consist of 11 credits.

#### **Clinical Sciences Program**

One week of rotation is equal to one credit. Each semester consists of 15–16 weeks of rotations for a total of 48 core rotation weeks and 30 elective weeks. Student duty hours at each hospital site should follow the ACGME standard that limits duty hours to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.

## **Competency Examinations**

#### **Course Examinations**

With the exception of students on an approved leave of absence, all students are expected to sit for scheduled examinations. Students unable to do so by virtue of illness must present documentation that they were under the care of a physician at the time of the examination. The form of the makeup examination will be at the discretion of the course instructor. In lieu of a makeup examination, the individual instructor may elect to average all of the student's other examinations in the course and use the averaged examination score in place of the missed examination.

#### **Shelf Examinations**

UMHS has been approved by the National Board of Medical Examiners to administer the online shelf examinations in St. Kitts. Shelf examinations are integrated into the Basic Science Program and are offered as final examinations in many of the courses. These examinations are, in essence, mini USMLE examinations, as they use a similar type and style of questions.

#### **Core NBME**

NBME exams assess knowledge gained during a core rotation. Students are required to complete a core NBME subject exam within two weeks after the completion of each core rotation, including internal medicine, surgery, OB/GYN, pediatrics, psychiatry, and family medicine.

#### **USMLE**

To enter into UMHS clinical rotations, students must successfully complete and pass the USMLE Step 1. This examination is taken after the Maine fifth semester and before advancing to the sixth semester. To receive a diploma from UMHS, students must complete the USMLE Step 2 CK. USMLE Step 2 CS was replaced by ECFMG Pathways 3 and 6, which are also required for graduation. These examinations are usually taken after completing the core clinical clerkships. To qualify for Step 2 CK, students must first pass the NBME Comprehensive Clinical Science Examination (CCSE). USMLE Step 3 is the final step for licensing and is taken after graduation and during or at the completion of residency training.

#### **ECFMG**

In order to be licensed to practice medicine in the United States, graduates must be certified by the Educational Commission for Foreign Medical Graduates (ECFMG). To be certified by ECFMG, students must pass USMLE Step 1 and Step 2 CK. Beginning in 2021, students must also go through ECFMG Pathways 3 or 6 as an alternative to Step 2 CS, which is no longer offered.

## **Student Progress**

#### **Attendance**

Attendance is mandatory for 80 percent of all classes and 100 percent of all labs, examinations, and clinical clerkships. Unavoidable and/or unexcused absences are addressed on a case-by-case basis. However, excessive lateness or absence from a course may result in a failing grade. Students who require an extended absence from class may request a leave of absence (emergency or academic).

#### Basic Science Program-Satisfactory Academic Progress

Student academic progress is considered satisfactory if the student has passed all courses, course examinations, and shelf examinations within the allotted time frames. This metric is used for both academic assessment, as well as financial aid eligibility. Taking a leave of absence or withdrawing from classes may negatively impact a student's satisfactory progress. A minimum GPA of 2.0 must be maintained for each semester, and a cumulative minimum GPA of 2.0 must be maintained throughout the academic program. Failure to do so will result in academic probation. A minimum of C is required in all courses. Students receiving an F in any course are eligible to repeat that course only once. Failure to pass a repeated course with a grade of C or better is grounds for dismissal. The student must also have adhered to all UMHS rules and regulations and be current with all financial obligations.

#### Clinical Science Program-Satisfactory Academic Progress

Progress in the clinical science program is considered satisfactory if the student has passed the USMLE Step 1 and Step 2 CK. Please note that the CS was discontinued in January 2021. As a result, students must also go through ECFMG Pathways 3 or 6 and successfully complete all clinical rotations within the allotted time frames. The student must also have adhered to all UMHS rules and regulations, and remained current with all financial obligations.

All progression, probation, dismissal, suspension, and censure determinations are made by the Dean of the Basic Science or Clinical Science Division based on receipt of verifiable information from the Registrar's Office, Promotions and Appeals Committee, Grievance Committee, or any faculty. One of more of the following actions may be taken, as appropriate:

- No progression in failed courses until the course(s) is/are successfully repeated.
- 2. Academic probation due to overall and or semester grade point average below a minimum 2.0 GPA.
- 3. Academic probation due to earned grade in a required course less than a minimum grade required for the program of enrollment.
- 4. Administrative probation due to violation of the profession conduct code.
- 5. Removal from probation.
- 6. Censure by written letter. Censure is defined as the finding that a student has committed an offense warranting discipline. It is a matter of record.
- 7. Suspension from UMHS.
- 8. Dismissal from UMHS.

The terms placed on the student's transcript for the appropriate semester might include "academic dismissal" and "academic suspension." Notations of "administrative probation," "placed on probation," "continued probation," and "good standing" may be placed in the student's permanent record. Specific academic criteria and the appeals process are outlined below and in the Student Handbook.

### **Academic Probation**

A student who receives a failing grade in any course during the Basic Science Program will be placed on academic probation for the following term. If the student successfully passes the course(s) in the probationary term, and the student's cumulative GPA is 2.0 or greater, the probation designation will be lifted. However, any subsequent failure in a repeated course or during a probationary term will be considered grounds for academic dismissal. Any student with a cumulative grade point average below 2.0 will remain on academic probation until the student's GPA reaches or exceeds 2.0. During the Clinical Science portion of the curriculum, the student will be placed on probation if a failing grade is received in any required or elective rotation. A student who fails a repeated rotation or fails two rotations will be academically dismissed.

## Criteria for Placement on Academic Probation

Any student who fails a course will be placed on academic probation and must repeat and pass that course during the following semester.

Any student who earns a GPA of less than 2.0 for a semester will be placed on probation.

Any student who is not able to complete the Basic Science Program within 150 attempted credits (150 percent of program) will be placed on probation.

Any student who is not able to complete Clinical Sciences Program (semesters 5 through 10) within 133 attempted clinical weeks (150 percent of program) will be placed on probation.

Any incoming student may be placed on academic probation by the Admissions Committee or the dean as a condition of their admission into the medical program.

#### **Emergency Absence**

An emergency absence is a temporary interruption in a student's education for a specific period of time. An approved emergency absence is generally no longer than two weeks. Students who fail to return from an approved leave within the designated timeframe will be administratively withdrawn from UMHS.

#### **Unauthorized Leave of Absence**

An unauthorized leave of absence is a leave that has not been approved by UMHS. In this case, UMHS reserves the right to administratively withdraw the student. Should that happen, the student must reapply to UMHS.

#### Non-Academic Dismissal

Violations of UMHS regulations, Code of Ethics, or legal expectations may constitute cause for dismissal. These types of violations will be adjudicated under the procedures outlined in the Student Handbook under "Non-Grade Grievances." Such information will be listed on the academic transcript.

#### **Academic Leave of Absence**

An academic leave of absence is a temporary interruption in a student's education for a specific period of time. An approved academic leave of absence may not exceed 180 days. Students may only take one leave of absence in a 12-month period.

## Criteria for Dismissal from the Program

Students may be dismissed from UMHS for any of the following reasons:

- Failing three courses in the Basic Science Program
- · Earning an F in two or more courses in the same semester
- · Earning an F in the same course or rotation twice
- Earning an F in a course or rotation while on academic probation
- Failure to complete the Basic Science Program within 150 attempted credits (150 percent of the program)
- Failure to complete semesters 5 through 10 within 133 attempted clinical weeks (150 percent of the program)
- Failure to pass the USMLE Step 1 or Step 2 within three attempts

#### Withdrawals

#### Student Withdrawal

Students may withdraw from the University by obtaining a Withdrawal Form, available on the Student Portal or from the Registrar's Office. The official withdrawal date is defined as the last date of attendance in a course or rotation. This date is commonly referred to as the Last Date of Attendance (LDA). The LDA is posted to the student's transcript and reported to lenders. The date that the action is considered official by the Office of Registrar is commonly referred to as Date of Determination (DOD). Any loan originators will be notified of such a withdrawal, and the student will be responsible for any financial obligations resulting from the withdrawal. The last date for withdrawal with a grade of W during Basic Sciences is the Wednesday the week after Block 3 exams. If a student withdraws on or before this date, he/she receives a W for the course(s), which does not affect GPA, and does not place the student on academic probation (unless the student was already on academic probation for a prior failed course).

#### **Administrative Withdrawal**

UMHS may withdraw a student for failing to register for classes or rotations, for not meeting academic and exam program timelines, for not submitting requested documentation, for not meeting University Policies, or at the discretion of the provost, deans, or designee for conduct, behavior, or health issues. The effective date of withdrawal will be the last day the student attended classes. Any loan originators will be notified of such a withdrawal, and the student will be responsible for any financial obligations resulting from such a withdrawal.

#### Re-admission

Students may reapply to UMHS by completing an admissions application and indicating they were previously a student. The application should include a written statement explaining the circumstances leading to the withdrawal. Additional information, such as medical documentation, letters of support, etc., may be submitted to further explain the circumstances. If any other college or university was attended since the last enrollment at UMHS, official transcripts must be submitted along with the application. Students failing at the time of withdrawal from UMHS will have their applications reviewed by the Registrar's office in New York and by the faculty Admissions Committee.

If a student has been withdrawn from UMHS for less than one year and is in otherwise good standing, they may reapply through the Registrar's Office by completing a re-acceptance application and providing supporting documentation as requested.

Re-admission is solely at the discretion of UMHS, and re-admission is not guaranteed. Students who are readmitted to UMHS will be required to adhere to all tuition policies/rates and all academic policies that are in effect at the time of re-admittance.

### **Code of Ethics**

The honorable profession of medicine requires students to behave appropriately at all times. Students must comply with professional standards of medicine, in both personal and professional aspects of life, in order to maintain a professional learning environment during enrollment at UMHS. Students are expected to function within the framework of the American Medical Students Association Code of Ethics, which is contained in the Student Handbook.

## **Liability Policies**

Policy on Hazing: No student in attendance at UMHS shall conspire to engage in hazing, participate in hazing, or commit any act that causes, or is likely to cause, bodily danger, physical harm, or personal degradation or disgrace resulting in physical or mental harm, to any fellow student.

Violation of this policy may result in disciplinary action against the student who is alleged to have committed the act, as well as the student organization that allowed the act to be committed. Such acts may also violate the laws of St. Kitts and, as such, may result in criminal sanctions as well. As part of their registration process with UMHS St. Kitts campus, all students shall be required to submit an attested acknowledgment stating that they have been informed of the policy, understand its implications, and further agree not to engage in hazing activities.

Policy on Sexual Harassment: UMHS considers sexual harassment, in all its forms, to be a serious offense and one that is subject to a range of actions up to and including suspension or dismissal. Sexual harassment by students, faculty, or staff is a violation of UMHS policy and is prohibited under Title VII of the Civil Rights Act of 1964, as amended, and Title IX of the Education Amendments of 1972.

Policy on Alcohol and Drugs: The unlawful possession, use, or distribution of alcohol and/or illicit drugs on any institutional property is prohibited. Students who believe they have a drug or alcohol problem may contact a University counselor for a confidential assessment, counseling, or referral for treatment.

## **Disciplinary Actions**

If a student's behavior necessitates disciplinary action, that student may be suspended or dismissed by the dean. Students have a right to appear before the grievance committee on issues that give rise to disciplinary action. The committee makes a final determination and provides its recommendation to the dean. This may occur due to academic or non-academic violations, including criminal action or failure to meet academic or ethical standards.

Suspended or dismissed students will receive written notification of the reason for such action. Suspended students will be informed of any available options for reinstatement. Dismissal decisions may be appealed. Suspensions or dismissals may affect student aid.

## **Grievance Policy**

UMHS expects students, faculty, and administrators to be responsible for maintaining personal, professional, and institutional standards in order to bring a positive reflection upon themselves, the school, and the medical profession. To that end, faculty, students, and administrators are responsible for reporting any allegation to the dean. Such reports must be in writing (signed and dated by the person making the report or allegation), and should describe the nature and specifics of the alleged conduct and the code or standard believed to have been violated.

Violations of, but not limited to, the following may be reported:

- Academic integrity and professional standards as set forth in the respective sections of the UMHS Student Handbook.
- American Medical Students Association Code of Ethics and/or UMHS policies. If a hearing is requested, the hearing procedure in the Student Handbook will be followed.

It is the goal of UMHS that your time as a student be educational and enjoyable. If a student believes he or she has been treated unfairly or has a complaint, he or she should follow the procedures outlined in the Student Handbook. It is our commitment to all students that any concerns will be addressed in a timely manner.

## **Graduation Information**

## **Graduation Ceremony**

Formal commencement exercises are held once a year in New York City, typically in June at Alice Tully Hall, Lincoln Center. However, there are four graduation dates per year, which officially acknowledge graduation. All guests must have a ticket to attend the ceremony. Guest tickets and an itinerary for the ceremony will be sent out to graduating students in mid-May of their graduation year. For further details, refer to the graduation memo on the Student Portal.

## **Graduation Requirements**

The following requirements must be met in order for a student to graduate from UMHS with an M.D.:

- Successfully complete all required Basic and Clinical Science courses with a minimum grade of C.
- Submit passing scores on the USMLE Step 1, Step 2 CK, and Step 2 CS.
   Please note that the CS was discontinued in 2021. ECFMG subsequently established Pathways 3 or 6 as a substitute for the CS. As a result, to qualify for graduation, students must satisfy one of these pathways.
- Maintain a minimum cumulative Grade Point Average of 2.00.
- Ensure all required administrative documents are on file.

Diplomas will not be released unless all outstanding balances, administrative documents, clinical evaluations, and scores from the USMLE Steps 1 and 2 (CK and CS) have been received and a final degree audit has been cleared by the Office of the Registrar.

## Graduate Residency Training

Fourth-year UMHS students pursue post graduate residency positions in prestigious hospitals throughout the United States, Puerto Rico, and Canada. After graduating, students begin their internship year alongside their United States and Canadian counterparts as practicing Doctors of Medicine (M.D.) in numerous specialties and in diverse residency training programs.

## Matching in a United States or Canadian Residency

Like students from U.S. medical schools, UMHS students apply for residencies through the National Residency Matching Program (NRMP) in order to obtain a position, or "Match," in the United States. Canadian students have the option of applying to Caribbean Residency Matching Service (CaRMS) alternatively, or in addition to, the United States NRMP program.

Students prepare and submit applications to the Electronic Residency Application Service (ERAS) in the summer or fall prior to the match year in order to interview with prospective programs between September and January. Canadian students follow a similar schedule through CaRMS.

In February, students submit rank lists of their preferred programs to the NRMP and CaRMS. Similarly, programs submit lists of their preferred applicants. Both the NRMP and CaRMS then apply an algorithm to determine a match based on those preferences, releasing those results to students in March, prior to graduation.

Although students apply to residencies during their fourth year, in order to begin practice in a U.S. program, students must pass the USMLE Step 1 and Step 2 CK, satisfy the ECFMG Pathway 3 or 6, complete the UMHS clinical curriculum, and receive their diploma and Educational Commission for Foreign Medical Graduates (ECFMG) certification.

A certificate from ECFMG assures a foreign medical school and its students that they have achieved a comparable acumen to United States institutions and meet the standard expected from the United States residency programs.

Canadian students are also required to pass the MCCEE Medical Council of Canada Evaluating Examination (MCCEE) and the National Assessment Collaboration (NAC) examination in order to meet the requirements of most Canadian residency programs.

## At UMHS

## **Facilities**

### Instructional Site Locations

### **Basic Science Program**

#### St. Kitts Campus (Semesters 1-4)

Students complete the Basic Science Program at the UMHS campus in St. Kitts and learn from highly credentialed faculty recruited primarily from the United States. Here, teaching modalities range from classic lectures to learning in small group settings.

A compelling differentiator at UMHS is the access students have to a variety of clinical settings and relevant clinical material throughout the Basic Science Program, beginning in their first semester. For example, our 24-bed virtual hospital—equipped with the latest in human-computer simulation technology—gives students a platform to discuss medical issues in small teams, learn physical diagnosis, and develop clinical skills in a safe and standardized environment.

In addition to the virtual hospital, UMHS students have access to community health centers, local hospitals, and professional and real patients.

### **Clinical Science Program**

#### Portland, Maine (Semester 5)

Clinical students transition to scenic Portland, Maine, in the United States, for their fifth semester. Maine was selected by UMHS because of its long tradition of providing quality healthcare and its demonstrated excellence in medical education. UMHS has developed a modern teaching facility that is strategically located within close proximity to several teaching hospitals, clinics, and housing. It contains a state-of-the-art classroom, skills laboratory, study area with computer connectivity, examination rooms, student lounge, and faculty offices.

The fifth semester consists of two required courses that include a USMLE review component through Kaplan Medical, which is considered one of the premier review programs in the United States.

The USMLE review provides additional support to ensure students have every opportunity to pass USMLE Step 1 with competitive scores. Students must pass USMLE Step 1 to progress to the sixth semester.

For a listing of course descriptions, please visit umhs.org/clinicalprogram.

#### Clinical Rotations (Semesters 5-10)

Students complete the Clinical Science Program in the United States and Canada. UMHS is affiliated with more than 20 teaching hospitals in New York, Connecticut, California, Georgia, Illinois, Michigan, Maryland, Oklahoma, Florida, Louisiana, Canada, and Puerto Rico. For a full listing of our affiliates and course descriptions, visit umhs.org/clinical program.

### St. Kitts Facilities

The fully networked campus is a cornerstone of a modern medical school. UMHS operates one of the newest and most technologically advanced campuses in the Caribbean, with facilities incorporating technology on the cutting-edge of healthcare instruction. Our students can access educational software, faculty presentations, and extensive online resource databases from virtually any location.

#### **Auditorium**

The innovative, 210-seat auditorium is equipped with 56" LED monitors, high-definition LCD projectors, an ELMO® presenter, Sympodium, and additional equipment designed to enhance the instructor's presentation.

#### **Multipurpose Laboratories**

Two modern, 100-seat multipurpose laboratories house cutting-edge technology, including audiovisual equipment, high-definition 55" LED monitors, ELMO® presenters, computers for presentations, Sympodiums, and projection microscopes. One of the laboratories is also equipped with a significant collection of anatomical models for student use.

#### **Anatomy and Neuroanatomy Laboratories**

Our 11,000-square-foot, state-of-the-art anatomy building contains both neuro and gross anatomy laboratories. The gross laboratory is furnished with approximately 20 dissection tables, and there is a 6:1 ratio of students to cadavers. A prosected cadaver is utilized for demonstration purposes and is viewed over 20 high-definition 55" LED monitors stationed at the end of each student's cadaver work table. Power poles are also placed at the end of each cadaver table for students who want to connect to our anatomical database on a laptop or tablet.

#### **Human Simulation Laboratories**

UMHS is a leader in the use of human simulation models. Our Human Simulation Laboratories are designed with the functionality and appearance of a hospital ward or clinic. We utilize a variety of both low— and high-fidelity simulators, including iStan®—the most advanced, realistic, wireless human simulator available today. It has the capability of providing jugular vein distention, bilateral chest movement, real breath, heart, and bowel sounds, and articulated motion.

Our most recent addition is Harvey, a cardiac simulator developed by the University of Miami. For nearly 50 years, Harvey has been a proven simulation system to teach bedside cardiac assessment skills that transfer to real patients. Next Generation Harvey® provides cardiopulmonary training for all healthcare providers. This full-size manikin realistically simulates nearly any cardiac disease at the touch of a button. New features include 20 additional patient scenarios—some with faster heart and respiratory rates—for a total of 50 conditions, 10 comprehensive standardized patient cases for teaching and assessment, and enhanced physical exam findings. Also new, additional bilateral arm pulses and laptop to support UMedic and future LLEAP integration.

#### Classrooms

There are smaller classrooms and break-out rooms throughout the campus, designed to offer closer interaction between faculty members and students for a more personalized educational experience. These spaces are used for small group instruction, seminars, group study, and problem-based learning sessions.

#### **Library and Learning Resource Center**

The Anne Ross Library and Learning Resource Center (LRC) is designed to provide students with an atmosphere for quiet study. The library houses an impressive collection of multimedia, books, and journals in both hard copy and electronic formats. It has break-out study rooms equipped with computers and audiovisual equipment.

All desks and individual study carrels in the library are laptop ready. The LRC houses more than 50 computers for student use. Library and LRC staff are available to assist students with research, information retrieval, and technology-based questions.

#### **Campus Bookstore**

The bookstore carries textbooks, study guides, diagnostic and surgical tools, and other essential items.

#### Café

The café is open throughout the day for meals, snacks, and refreshments. We also have a vendor on campus that offers a diverse variety of food.

#### Gym

Our full-service gym offers a variety of Life Fitness and Cybex machines, including treadmills, ellipticals, stationary bicycles, free weights, and more. We also constructed on campus both a basketball court and soccer field for student use.

## Portland Maine Campus: Fifth Semester

Students return to scenic Portland, Maine in the United States for their fifth semester. The Portland facility is state-of-the-art. The facility contains a learning resource center with library access, a skills laboratory, examination rooms, classrooms, a student lounge, and faculty offices. The UMHS campus is located in close proximity to several teaching hospitals, clinics, and housing in the Portland area.

## Student Services and Campus Amenities

## Campus Safety and Security

UMHS takes the safety and security of its students, faculty, and staff very seriously. There is a full-time security staff and security office on campus to assist students with any questions or concerns. Students are required to obtain a University identification card when they first register for classes. Students must show their identification card to enter the campus, and the card must be visible on the student at all times while on campus.

## Island Safety

St. Kitts is a relatively safe island; however, we urge students to exercise normal precautions, as if they were visiting any large city. The people on the island are generally very welcoming and friendly. As with any country or region that suffers higher rates of poverty, crimes of opportunity do occur. Be aware of local surroundings and avoid opportunistic crimes by not leaving valuables unattended or doors unlocked. The University's full-time security force will come to a student's aid at any time of the day or night, and in any location on the island.

### **Medical Healthcare**

The UMHS healthcare clinic is located on campus, and is staffed with a registered nurse who provides students, faculty, and staff with medical care or referral for additional medical services. St. Kitts has health clinics located throughout the island. The main hospital in St. Kitts is the Joseph N. France General Hospital in Basseterre, which is less than a two-minute drive from the campus.

## Health Insurance Coverage

Every UMHS student is required to maintain health insurance coverage, as well as emergency evacuation insurance that is used to transport an ill student to the closest U.S. hospital. Students can opt out of the University medical insurance plan with proof of insurance. However, all students are required to have the University evacuation insurance.

## **Mental Healthcare**

The mental health of UMHS students and faculty is of vital importance. The University takes several steps to ensure that students are taking preemptive measures to maintain their mental well-being. For immediate needs, a campus counselor is available to speak with and treat students. If a student's mental health issues cannot be resolved by the University, a referral to an appropriate mental healthcare provider will quickly occur.

## **Campus Support Services**

Support services are provided to help counteract academic concerns, poor health, stress, or other problems that may negatively impact the educational process. Each student is assigned a faculty advisor to provide educational support and guidance when determining future career goals. The University also has a well-structured tutoring program in place for students that need additional academic help.

The promotions committee tracks each student throughout the semester and will identify students that are having academic difficulty. Students will be called into the Dean's office to address any issues and to develop an action plan to remediate any deficiencies. As a result of our early detection plan, we have been able to maintain an extremely low attrition rate of four percent. In addition, the faculty at UMHS are fully dedicated to the success of our students and have daily office hours to meet with students that have questions and concerns. After each block, students with academic issues meet with their respective faculty tfor counseling and advice and to develop an action plan, which can also include a referral to our learning specialist.

## **Technology Support**

The UMHS campus has an advanced computer and communications network that is managed by the Information and Technology Services (ITS) Department. The ITS Department is composed of professionally trained, experienced, and dedicated staff members who are focused on providing responsive support.

This team supports the University hardware, software, peripherals, shared database systems, and multimedia equipment. The ITS Department provides all students with access to the Wi-Fi network and a UMHS email account.

## **Disability Accommodations**

UMHS attempts to provide reasonable accommodations to students with disabilities. The University strives to enable students with disabilities to assist themselves in achieving their educational goals and enhancing their leadership development through participation in the facets of campus life.

Students with disabilities may be required to provide documentation of the disability. The cost of assessment and documentation is the student's responsibility. Assessment services may not be available in St. Kitts and may need to be procured in the United States or Canada.

### **Residential Life**

The UMHS campus has a vibrant atmosphere, evoking a collegial environment. The students, faculty, and staff members are all dedicated to medical education.

## Housing

All student housing in St. Kitts is off-campus and is made up of various options located throughout the island. There is a wide variety of housing to satisfy any student's need. Housing stock includes apartments, houses, hotels, and dorm-like facilities. There are many housing options within walking distance to campus. The University's bus service shuttles students to and from campus for those that live outside of walking distance. The University Housing Department assists students in locating and securing appropriate housing accommodations. The Housing Department maintains an online database of housing accommodations to fit every need and budget.

For more details on student housing, visit umhs-sk.org/housing.

## **Transportation**

Students can opt to purchase or rent a vehicle while they are in St. Kitts. The university has also contracted with local bus companies to provide transportation to students that live a distance from campus. In addition, students can always choose to utilize the local taxi and bus service on the island to get to locations not related to the university.

## **Faculty Availability**

The faculty are on campus every day and maintain open office hours to support students. Each student is assigned a faculty advisor to assist them throughout the course of the semester. Students encountering academic difficulties are required to meet with their respective faculty advisor, as well as the Dean of Basic Science, to develop an action plan to address any deficiencies. UMHS faculty and administrators are dedicated to student success and are relentless in their mission to provide students with the tools, resources, and education to succeed. Students encountering academic issues are required to meet with their respective faculty after each block examination.

## **Campus Access**

Campus facilities, including classrooms, breakout rooms, the library, and the Learning Resource Center are all open weekdays from 7 AM to 11 PM, and have reduced hours on the weekends. In the evening hours, most of the campus is open for student access. The student lounge is open 24 hours a day. It contains student refrigerators, microwaves, vending machines, student lockers, and comfortable seating.

### **Student Orientation**

Students coming to UMHS for the first time are required to attend New Student Orientation. This occurs several days prior to class registration. New Student Orientation gives students an opportunity to meet fellow classmates as well as learn about the campus, the various student services offered, and the diverse island life of St. Kitts.

## White Coat Ceremony

First-semester students are welcomed into their medical education at the White Coat Ceremony. The ceremony includes a formal cloaking of students in their white coats to signify their journey toward a medical career. Students should have a short white lab coat to put on during the ceremony.

## **Organizations and Clubs**

The University of Medicine and Health Sciences supports a variety of campus organizations and clubs including a Student Government Association (SGA) and a chapter of the American Medical Student Association (AMSA). Student Government is made up of elected representatives from each of the classes in St. Kitts. They are the voice of the student body and actively liaison with senior administrators and faculty throughout the semester. They are also involved in coordinating several student functions, including the Welcome Back Party and the senior banquet. For additional details on organizations and clubs, see page 69.

## Student Body

The student body at the University of Medicine and Health Sciences is extremely diverse—with many ages, ethnic and socioeconomic backgrounds, genders, and religious beliefs represented. Students are primarily from the United States, Canada, and Puerto Rico. Everyone, however, shares at least one thing in common—the desire to become a licensed and practicing physician. By dedicating themselves to this purpose, students find themselves in a supportive, rewarding, and enriching peer group of likeminded people.

On weekdays, UMHS students are in class for most of the day, and then will typically study until 10 or 11 pm. However, on weekends, our students do spend time enjoying the natural beauty of St. Kitts, the vibrant island nightlife, and the unique opportunity to live and study in another culture.

## Useful Info for Living in St. Kitts

## Campus Life

The University of Medicine and Health Sciences' campus has a vibrant atmosphere, evoking a collegial environment. The students, faculty, and staff are all dedicated to medical education. Faculty maintain open office hours throughout the day to support students. Campus facilities, such as the library and Learning Resource Center, are open seven days a week. Most of the campus is open from 7 AM to 11 PM, Monday through Friday, with reduced hours on the weekends. Transportation is provided throughout the daytime and evening hours to shuttle students that live outside of the campus area.

#### **Local Amenities**

St. Kitts offers many of the same amenities and luxuries that can be had within the U.S. There are supermarkets, high-end restaurants, nightclubs, laundromats, banks, and even a movie theater. Public transportation is widespread, with buses and taxis operating throughout the island.

#### Weather

Although hot and tropical, St. Kitts weather is tempered by Caribbean trade winds throughout the majority of the year. Temperatures usually range between 78 and 88 degrees Fahrenheit throughout the year. January to April is the driest period of the year. Rainfall increases during the summer and near the end of the year. The average annual rainfall is about 50–80 inches per year. Hurricane season runs from August through October.

## St. Kitts Community

St. Kitts and her sister island, Nevis, compose the Federation of St. Christopher and Nevis. St. Kitts has become the commonly used name for St. Christopher, and the people of St. Kitts are called Kittitians. English is the primary language, although Kittitians often speak a dialect called Patois.

#### Government

The Federation of St. Christopher and Nevis is a member of the British Commonwealth of Nations. The British monarch is recognized as the head of state. The country became autonomous in 1967 and is led by a prime minister. The capital of St. Kitts is Basseterre.

### **Economy**

The economy of St. Kitts traditionally was focused on sugarcane production. In recent years, tourism, export-oriented manufacturing, and offshore banking have become the primary businesses.

#### **Amenities**

St. Kitts offers many Western-style amenities, including resort hotels, excellent restaurants, a movie theater, taxi services, supermarkets, high-end stores for shopping, and houses of worship for a variety of religious beliefs.

#### **Time**

The time observed is Atlantic Standard Time, which is one hour ahead of Eastern Standard Time. Daylight Saving Time is not observed.

## **Currency and Banking**

The official currency in St. Kitts is the Eastern Caribbean Dollar (EC). The conversion rate is approximately \$2.70 E.C. for \$1.00 U.S. Bank branches are easily found in Basseterre, the capital of St. Kitts. Each bank provides 24-hour ATM services, and cash distributed by ATMs is in EC dollars. The UMHS on-campus ATM is affiliated with the Royal Bank of Canada.

## **Electricity**

The electricity in St. Kitts is 220 volts/60 cycles. American electricity is 110 volts/60 cycles. While many apartments use 110 volts, students may need converters for use with American appliances in off-campus apartments. Students should contact the UMHS Housing Department prior to arriving in St. Kitts to verify the voltage of their apartment. Electricity on the UMHS campus is 110 volts/60 cycles.

### Supermarkets

St. Kitts has supermarkets that are similar to smaller markets in the U.S. or Canada. There is a farmer's market open most Saturdays in Basseterre. There is also a fish market in Basseterre that sells daily fresh catches.

### Communications

When students arrive for orientation prior to first semester, the Welcoming Committee will explain telephone options. Cable and Wireless St. Kitts & Nevis, Ltd. provides the only phone cards that work in St. Kitts. Each student is given an island phone with a local phone card during orientation.

For calls to family and friends back home, some students use a Voice Over Internet Protocol (VoIP) service such as Vonage. In addition, there are computer-to-computer internet telephone services such as Skype, which allow you to place calls at no cost to other users.

#### **Local Travel**

In St. Kitts, everyone drives on the left side of the road. Road conditions in St. Kitts are significantly different than those in the U.S. or Canada. While roads are well paved, they may be narrow and poorly marked. Drivers often stop on the road to visit with other drivers, blocking at least one lane of traffic. When a driver honks a car horn, it is a common form of greeting, not a warning.

Public transportation consists of buses and taxis. Because of the road conditions, the use of a motorcycle or scooter is not recommended.

#### **Additional Resources**

We urge students to visit the following websites to get a better perspective on why St. Kitts is an amazing place to live:

https://www.stkittstourism.kn/ https://en.wikipedia.org/wiki/Saint\_Kitts\_and\_Nevis

## **Organizations and Clubs**

UMHS has a vibrant body of student-run clubs and organizations that reflect the diversity of our student population.

## Student Government Association (SGA)

The Student Government Association is a student-elected organization that acts as the liaison between the school administration and the student body. The electoral board consists of 10 class representatives and five executive board members. Each semester, the SGA organizes celebratory student events, such as the Welcome Back Party, mid-semester Sunfest Beach Party, and the Student Clinician Ceremony.

## American Medical Student Association (AMSA)

The American Medical Student Association (AMSA) is the oldest and largest independent student-governed organization for physicians-in-training in the U.S. AMSA is composed of medical and premedical students, interns, residents, and practicing physicians from across the world. AMSA is committed to representing the concerns of physicians-in-training and improving the lives of medical students. AMSA's aspirations are: quality, affordable healthcare for all, global health equity, enriching medicine through diversity, professional integrity, development, and student well-being. AMSA is a place where you, as a student, can have a voice for the things that matter to you and your future patients. You can be an advocate for the change you believe in. It helps you remember why you wanted to be a physician. On campus, the UMHS AMSA chapter strives to accomplish AMSA's goals through different programs including running simulation labs and organizing student-led health fairs for the community.

For more information, please visit amsa.org.

## American Medical Women's Association (AMWA)

The American Medical Women's Association (AMWA) is composed of physicians, residents, medical students, and healthcare professionals. They are dedicated to advancing women in medicine and improving women's health. AMWA empowers women by developing leadership, advocacy, education, expertise, mentoring, and strategic alliances at the local, national, and international levels. On campus, UMHS' AMWA chapter aims to achieve these goals with a variety of programs such as bringing in guest speakers and organizing panel events, self-defense classes, simulation labs, interactive clinical case studies, fundraisers for local charities, and events that promote awareness of various women's health issues.

For more information please visit facebook.com/amwaatumhs or amwa-doc.org.

## Middle Eastern Medical Student Association (MEMSA)

The Middle Eastern Medical Student Association (MEMSA) at UMHS is a student organization providing insight into Middle Eastern culture, while also organizing philanthropic events to give back to the local St. Kitts community. Along with philanthropy, the group plans to hold events promoting Middle Eastern culture through the serving of popular Middle Eastern dishes and exploring cultural hobbies.

## African Student Association (ASA)

The ASA is a cultural group that is not exclusive to African students. ASA encourages participation by members of other races and ethnic backgrounds, for the purpose of uniting and promoting awareness of African cultures and health issues in the African community and the world around us.

## **UMHS Sports Club**

The UMHS Sports Club creates an easy channel for UMHS students to partake in organized sports such as soccer, volleyball, softball, flag football, basketball, and ultimate frisbee, as well as more obscure sports, such as scuba diving. Weekends usually consist of volleyball leagues and softball games, which are friendly and open to all skill levels.

## Religious and Cultural Organizations

Religious and cultural organizations are welcomed at UMHS. Their purpose is to support the diverse spiritual needs of the student body and to promote experiences for cultural growth.

## **Sports and Recreation**

An exotic paradise, St. Kitts is distinguished by breathtaking natural beauty. Boasting crystalline waters, soft sandy beaches, untouched ecosystems, tropical rainforests, and a spectacular dormant volcano, St. Kitts offers something for everyone.

### **Sports**

The welcoming climate provides for a wide range of outdoor fun, including many water-based activities such as snorkeling, scuba diving, and sailing. Students are encouraged to take advantage of the various activities on the island, including golf, basketball, tennis, jogging, soccer, volleyball, flag football, and other outdoor sports. The University actively endorses intercollegiate sporting events between the other universities in St. Kitts.

## Hiking, Climbing, and Zip-lining

St. Kitts is also a perfect setting for outdoor adventure activities such as hiking. The trails are beautiful and range in difficulty from easy to extreme. The rainforest hikes are exceptional, allowing hikers to experience a wide assortment of flora and fauna. Other hikes include trails to a variety of waterfalls, caves, and even a volcanic crater.

Zip-lining is another popular activity on St. Kitts, especially for those with a penchant for adventure. You can ride a series of zip-lines that traverse hundreds of feet above various canyons and tropical rainforests, experiencing all of the beauty of St. Kitts' exotic scenery. It's a must-do activity for all visitors to the island. See more here: skysafaristkitts.com.

#### **Brimstone Hill**

If you are a history buff, Brimstone Hill is definitely worth visiting. Dating back to the seventeenth century, when the French first placed a cannon on the strategically advantageous location, the fort has changed hands several times between British and French forces over the years. At 972 feet high, Brimstone Hill is also a great spot to bring your camera and enjoy the sweeping Caribbean views!

### **Botanical Gardens**

The Botanical Gardens are also a must-visit, hosting an incredible variety of tropical plants, including various palm species and exotic trees from Africa. Don't forget to stop at the Caribelle Batik Store while you're there, and enjoy a live demonstration on the batik process. A beautiful and exotic clothing style, batik uses wax to create unique clothing patterns that will be a great addition to your Caribbean wardrobe. For further information, please visit: caribellebatikstkitts.com.

## **UMHS On-campus Gym**

The University recently developed a gym that is equipped with a full range of cardio and weight-training gear including treadmills, ellipticals, bikes, Cybex machines, free weights, and more. The facility is open throughout the day and evening, and is maintained by a staff of professionals who are available to assist students. A variety of exercise classes are held throughout the day. The University also has on campus a basketball court and a well maintained soccer field for student use.

#### Recreation

The island of St. Kitts offers a diversity of culture and a treasure-trove of historic sites to explore. Sightseeing might include small towns that highlight colonial architecture, stately plantation homes, as well as quaint local shops. Special annual events feature a colorful carnival and a music festival. Special events are often held at the 10,000-seat stadium built for the 2007 World Cup Cricket Games.

# Licensure and Accreditation

## Licensure

To graduate from the University of Medicine and Health Sciences (UMHS) with a Doctor of Medicine (M.D.) degree, UMHS students must successfully pass both Step 1 and Step 2 of the United States Licensing Examinations (USMLE). To practice medicine in the United States, UMHS graduates must successfully pass all three steps of the United States Licensing Examinations (USMLE) and be certified by the Educational Commission for Foreign Medical Graduates (ECFMG).

Beginning in the first semester, we integrate Kaplan review materials throughout the Basic Sciences, culminating with a live fifth semester USMLE review at our Maine Campus. Our comprehensive approach ensures students success on Step 1. We also provide access to all of our students AMBOSS, another premier review program for Step 1 and 2.

Each state regulates medical licensure in the United States. Because these standards vary by state, we urge students to contact their state medical board for further information about licensure.

## United States Licensing Examinations (USMLE)

Three tests comprise the USMLE, and they assess a physician's ability to apply knowledge, concepts, and principles, as well as to demonstrate fundamental patient-centered skills that constitute the basis of safe and effective patient care.

#### **USMLE Step 1**

Assesses whether medical school students understand and can apply important concepts of the basic sciences to the practice of medicine. Students sit for this examination immediately after they have completed the fifth semester in Portland, Maine.

#### Step 2 CK, CS, and Pathways

Assesses whether medical school students can apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under supervision. Students typically sit for these examinations after they have completed the core rotations. Students must first pass the CCSE to qualify for Step 2 CK. The Step 2 CS exam was replaced in 2021 with Pathway 3 and 6 established by ECFMG.

### **USMLE Step 3**

Assesses whether medical school graduates can apply medical knowledge, skills, and understanding of biomedical and clinical science essential for the unsupervised practice of medicine. Students sit for this examination after graduating from UMHS.

# Education Comission for Foreign Medical Graduates (ECFMG) Certification

Students graduating from international and Caribbean medical schools must be certified by the Education Commission for Foreign Medical Graduates (ECFMG) in order to gain residency and licensure in the U.S. All UMHS students receive ECFMG certification by successfully graduating from our M.D. program and passing USMLE Steps 1 and 2. There is no additional certification exam on the students' part prior to graduation.

## **Residency Positions**

Residency programs begin annually on July 1. In order to be eligible, students must have the following prior to May 31 of the Match year.

- 1. Passing scores on the USMLE Step 1 and USMLE Step 2 CK and CS 2. The CS was replaced in 2021 with Pathways 3 and 6 established by ECFMG.
- 2. Diploma from UMHS
- 3. ECFMG certificate

When applying for residency positions, deadlines are critical. Most residency programs accept applications from September to December for entry the following July. Students apply through the Electronic Residency Application Service (ERAS), beginning in the summer prior to the match. Interviews are generally conducted from September to January.

The best way to become familiar with residency programs and their respective locations is to obtain a copy of the American Medical Association (AMA) Graduate Medical Education Directory, also known as the "green book," a resource available online. The guide lists programs accredited by the Accreditation Council for Graduate Medical Education (ACGME).

## Graduate Residency Training

Fourth-year UMHS students pursue post-graduate residency positions in prestigious hospitals throughout the United States and Canada. After graduating, students begin their internship year alongside their United States counterparts as practicing Doctors of Medicine (M.D.) in numerous specialties and in diverse residency training programs.

#### Resources

USMLE SECRETARIAT 3750 Market Street Philadelphia, PA 19104-3190 Telephone: 215-590-9700 FAX: 215-590-9457

http://www.usmle.org/

AMERICAN MEDICAL ASSOCIATION 515 N. State Street Chicago, IL 60610 312-464-5000

http://www.ama-assn.org/ama

ECFMG 3624 Market Street Philadelphia, PA 19104-2685 USA http://www.ecfmg.org/index.html

NATIONAL RESIDENT MATCH PROGRAM 2540 N Street, N.W., Suite 1 Washington, D.C. 20037-1037 202-828-0566 http://www.nrmp.org/

## Accreditation

UMHS students are eligible to sit for the United States Medical Licensing Examinations as a result of the listing in the World Federation of Medical Education's World Directory of Medical Schools.

## Accreditations and Approvals

In addition to having been granted five-year accreditations in 2012 and 2017 from the Accreditation Board of St. Kitts and Nevis, the University of Medicine and Health Sciences (UMHS) also has a full accreditation from the Accreditation Commission on Colleges of Medicine (ACCM), an internationally recognized accrediting body that follows the Liaison Committee of Medical Education's (LCME) Standards for Accreditation. The LCME is empowered by the U.S. Department of Education as the accreditor of U.S. and Canadian medical schools.

ACCM is approved by the National Committee on Foreign Medical Education and Accreditation (NCFMEA). The NCFMEA is empowered by the U.S. Department of Education to review written and applied accreditation standards for medical schools outside of North America. ACCM is approved by NCFMEA and is recognized as having standards comparable to those utilized in the U.S.

If a student has submitted a complaint to UMHS through the Student Portal Complaint Box, which indicates that UMHS has been non-compliant with ACCM accreditation standards and does not feel that UMHS fairly resolved the problem, they may contact ACCM at office@accredmed.org or on their website (http://www.accredmed.org/complaints-policy).

Complaints must be submitted in writing, giving as much detail as possible of the matter in question. ACCM will not intervene in internal matters such as admissions, appointments, promotions, or dismissals. Anonymous complaints will not be considered.

The identity of a complainant is kept confidential insofar as possible, although there may be circumstances in which confidentiality cannot be maintained. In this case, the complainant will be asked to sign an authorization to release any relevant documentation or information as required. For more details on ACCM's procedure for handling complaints about educational program quality, please write to the ACCM Secretariat.

**ACCM Secretariat** 

131 Belmont, Southern Cross Road, Bray, Co. Wicklow, Ireland

Phone: +353-87-238 8502 Email: office@accredmed.org Website: www.accredmed.org

UMHS understands the importance of having its programs accredited so that our students may be eligible to sit for the United States Medical Licensing Examinations (USMLE) and apply for certification from the Educational Commission for Foreign Medical Graduates (ECFMG). This certification is required for international and Caribbean medical school graduates to obtain residencies and licensing to practice medicine in the United States.

#### St. Kitts Accreditation

An important first step for ECFMG is to be accredited in the country in which the school is located. UMHS was granted full five-year accreditations by the St. Christopher and Nevis Accreditation Board, an arm of the Ministry of Education, in both 2012 and 2017.

## World Directory of Medical Schools

The next step is for the school to be listed in the World Directory of the World Federation of Medical Education. UMHS received this listing in June 2008.

As a result of the World Directory listing and our accreditation, students at UMHS are eligible to sit for the United States Medical Licensing Examinations. Graduates who have successfully passed Step 1 and Step 2 CK and CS of the USMLE are eligible for ECFMG certification. USMLE Step 3 is taken after graduation. In 2021, the CS was eliminated and replaced by Pathway 3 and 6 established by ECFMG.

## USMLE Step 1 and Step 2 CK and CS

Graduates who have successfully completed the UMHS program and have passed Step 1 and Step 2 CK and CS of the USMLE are eligible to apply for Educational Commission for Foreign Medical Graduates (ECFMG) certification, which is required to obtain a residency in the United States. We recommend that students visit efcmg.org for further information about certification. Please note that in 2021, the CS was eliminated and replaced by Pathway 3 and 6 established by ECFMG.

### **USMLE Step 3**

Step 3 of the USMLE is taken after graduation. To be eligible for licensure, graduates must have successfully passed all three steps of the USMLE and satisfied the specific state requirements. Since licensure requirements vary by state, we urge all students to contact their licensure board, or boards, for further details.

## Caribbean Medical School Accreditation

In August 2007, the WHO and the University of Copenhagen signed an agreement, which gave the University responsibility for the development and administration of new global directories for the academic health professions with the assistance of the World Federation for Medical Education (WFME), which has a long-standing collaboration with WHO. WHO will continue its involvement together with other partners. The World Directory of Medical Schools has been developed through a partnership between the World Federation of Medical Education (WFME) and the Foundation for Advancement of International Medication Education and Research (FAIMER). The World Directory is a comprehensive compilation of the information previously contained in the ECFMG's IMED and Avicenna directories.

## **State Approvals**

In addition to accreditation, there are a small number of U.S. states that have provisions for approving foreign medical schools. Gaining state approvals enhances the reputation of the university, provides further opportunities to expand the clinical program, and substantially increases residency opportunities, which positively impacts both our students and graduates.

This approval allows our University to continue to conduct clinical programs in Georgia. Consequently, our students will be eligible for unlimited clinical rotations, residency selection, and licensure in the state of Georgia.

#### Georgia

In order to qualify for an approval, the University had to provide a significant amount of documentation including both a database of outcome information as well as a self-study. The review was very rigorous and demanding. In 2014, the University received a conditional approval after receiving a positive response from a site visit to the University. A subsequent follow-up site visit occurred in January 2015, resulting in a full approval of the University.

As a result of our approval, the university has affiliated with several teaching hospitals in Georgia where students can complete their core and elective clinical rotations. A significant number of our graduates remain in Georgia, where they subsequently have obtained a residency and ultimately licensure.

#### **Florida**

UMHS is licensed by the Commission for Independent Education, Florida Department of Education. Additional information regarding this institution may be obtained by contacting the Commission for Independent Education, Department of Education, 325 West Gaines Street, Suite 1414, Tallahassee, FL 32399-0400, toll-free telephone number (888) 224-6684.

Statement of Legal Control: University of Medicine and Health Sciences Limited Corporation is registered with the Florida Department of State as a foreign profit corporation doing business as University of Medicine and Health Sciences.

#### California

UMHS is approved in California. As a result, all current and future UMHS students qualify for clinical rotations, residencies and licensure in California. Our goal is to make California a regional clinical center with multiple affiliations offering a full complement of core and elective rotations. As a result of our approval we now have an affiliation with a teaching hospital in California.

#### **New York**

UMHS has applied to New York for state approval. We are now in queue for a future site visit and hope to be reviewed in 2022.

### **Additional Information**

## Educational Commission for Foreign Medical Graduates (ECFMG°)

The Educational Commission for Foreign Medical Graduates (ECFMG®) assesses the readiness of international medical graduates to enter residency or fellowship programs in the United States that are accredited by the Accreditation Council for Graduate Medical Education (ACGME).

To become ECFMG certified, UMHS students and graduates, like all international medical school students and graduates, must register with ECFMG to take the USMLE Steps 1, 2, and 3. Graduates must also provide their international medical school transcripts. ECFMG® verifies that the international medical school is listed in the World Federation of Medical Education's World Directory of Medical Schools.

## Foundation for the Advancement of International Medical Education and Research (FAIMER)

Foundation for the Advancement of International Medical Education and Research (FAIMER) is a non-profit foundation committed to improving world health through education. FAIMER was established in 2000 by the Educational Commission for Foreign Medical Graduates (ECFMG®). In partnership with ECFMG®, FAIMER promotes excellence in international health professions education through programmatic and research activities.

## **ECFMG Certification**

Students graduating from UMHS and all other international and Caribbean medical schools must be certified by the Education Commission for Foreign Medical Graduates (ECFMG®) to sit for the USMLE. This certification is required for residency and licensure in the United States.

#### **ECFMG®** Overview

The Educational Commission for Foreign Medical Graduates (ECFMG®) assesses the readiness of international medical graduates to enter residency or fellowship programs in the United States that are accredited by the Accreditation Council for Graduate Medical Education (ACGME). To become ECFMG® certified, UMHS students and graduates, like all international medical school students and graduates, must register with ECFMG® to take the USMLE

Steps 1, 2, and 3. Graduates must also provide their international medical school transcripts. ECFMG verifies that the international medical school is listed with the World Directory of Medical Schools.

A medical school is listed in the World Directory of Medical Schools after WFME receives confirmation from the Ministry of Health or other appropriate agency that the Ministry or agency has recognized that school.

# United States Medical Licensing Examination (USMLE)

UMHS Medical students are required to pass the USMLE exams in order to become licensed in the United States. These exams assess a physician's ability to apply knowledge, concepts, and principles, and to demonstrate fundamental patient-centered skills that are important in health and disease and that constitute the basis of safe and effective patient care.

### **Three-step Process**

Three tests comprise the USMLE. The exams are administered throughout the medical education process and include Step 1, Step 2 (CK), and Step 3. Each of the three steps of the USMLE complements the others. No single step score can stand alone in the assessment of readiness for medical licensure with regards to safe and effective patient care. Please visit www.usmle.org for more information.

#### **USMLE Step 1:**

The USMLE Step 1 is taken prior to semester six at UMHS. This examination assesses whether medical school students understand and can apply important concepts of the sciences basic to the practice of medicine.

### **USMLE Step 2 CK:**

The USMLE Step 2 CK and CS are taken prior to graduation from UMHS. These tests assess whether medical school students can apply medical knowledge, skills, and understanding of clinical science essential for provision of patient care under supervision. In 2021, ECFMG discontinued the CS examination and replaced it with Pathway 3 and 6.

#### **USMLE Step 3:**

The USMLE Step 3 is taken prior to the completion of residency training. This examination assesses whether medical school graduates can apply medical knowledge, skills, and understanding of biomedical and clinical science essential for the unsupervised practice of medicine.

#### **UMHS Success**

UMHS students have performed exceptionally well on USMLE examinations for the following reasons:

- Development of comprehensive Basic and Clinical Science Programs modeled after the U.S. programs.
- 2. UMHS has incorporated into the curriculum the use of shelf examinations developed by the National Board of Examiners. These exams, which are developed for all the core clinical clerkships and basic science courses, are made up of exam questions that mimic the USMLE. Virtually every U.S. medical school utilizes these examinations.
- 3. UMHS is one of the only foreign medical schools to offer a comprehensive review program for Step 1 and Step 2 through Kaplan Medical.

## USMLE Review with Kaplan Medical

We understand how important it is for students to perform well on both Step 1 and 2 of the USMLE and want to provide all the resources necessary to ensure your success. To be competitive in the match, students must pass both of the first two steps on the first attempt and obtain the highest score possible. Kaplan has played a key role in preparing our students for Step 1 with a seven-week comprehensive review program in Maine.

In 2016, UMHS partnered with Kaplan Medical to also provide a comprehensive review program for Step 2 CK and CS. All students are automatically enrolled in this program once they successfully pass Step 1. This gives our students the competitive edge they need to ensure a high first-time pass rate and exceptional scores.

#### AMBOSS:

UMHS is also affiliated with AMBOSS, one of the premier USMLE Review Programs for USMLE Step 1 and 2. All UMHS students have full access to their materials including a comprehensive question bank of USMLE style questions and content.

#### **Program Descriptions:**

#### Step 2 CK On-demand:

Prep around your busy clinical schedule with Kaplan's convenient online prep program, which provides on-demand internet access to over 115 hours of online video lectures delivered by Kaplan's expert faculty. This online course includes 24/7 access to our full Step 2 CK video library with a menu that allows you to create a personalized study plan to customize your prep. It includes Kaplan's new Lecture Notes and Assessment Tests, as well as Ebook lecture notes.

#### Step 2 CK Qbank:

Featuring over 2,000 exam-like practice questions, this program includes one diagnostic test, and two full-length simulated exams, all written by master faculty and reviewed by high-scorers. Detailed explanations and ReKap summaries are included, plus expert support from our academic team via email.

#### Kaplan Integrated Plan:

We now offer all UMHS Basic Science students access to the new Kaplan Integrated Plan. We are one of the first offshore medical schools to offer this package to students in the Basic Sciences, allowing students to get a jump-start on preparing for USMLE Step 1. UMHS students no longer have to wait until the fifth semester in Maine to access these valuable resources. The information will also be useful as an additional resource with content and videos which correspond to each of the Basic Science courses taken in St. Kitts.

The Integrated plan contains the following:

- Over 2,100 newly updated USMLE-type questions
- Full explanations and "ReKap" summaries for all guestions
- Streamlined user experience with progress reports
- Simple test creation and test-like interface
- Customized study plan structured around your performance
- 26 mastery assessments
- 40–70 hours of online interactive videos
- One diagnostic exam
- Two full-length simulated exams
- Mobile-friendly and available in the Kaplan App

## Admissions

## **Admissions Process**

## **Admissions Requirements**

Prospective applicants to UMHS must meet the minimum requirements for admission outlined below. Applicants are expected to have completed a minimum of three years of study (90 semester credits) at an accredited college or university. However, it is highly recommended that applicants earn a bachelor's degree prior to matriculating at UMHS. Applicants must have successfully completed the following undergraduate prerequisite courses:

| PREREQUISITES   | DURATION     |
|---|--------------|
| Inorganic or General Chemistry (with Labs)                    | One Year     |
| Organic Chemistry (with Labs)*                                | One Year     |
| General Biology or Zoology (with Labs)                        | One Year     |
| Physics (with Lab)  | One Semester |
| English   | One Year     |
| College-level Mathematics (Preferably Calculus or Statistics) | One Semester |

<sup>\*</sup>Applicants may substitute one semester of Biochemistry for Organic Chemistry II if this is the prescribed pre-medical chemistry sequence at their college or university. It is recommended that additional advanced science courses such as Genetics, Anatomy, Physiology, and Biochemistry be taken, as well. High school advanced placement courses are considered on a per-case basis and may meet prerequisite requirements.

### **Application Checklist**

Begin the process by completing our online application for admission. All required supporting credentials and documentation must be received by the UMHS Office of Admissions in order to initiate an application review.

A completed file consists of:

- 1. Completed online application
- 2. \$75 nonrefundable application fee (waived for AMCAS applicants)
- 3. Signed application certification form
- 4. Official transcripts from all institutions attended
- 5. MCAT score results (if applicable)
- Pre-Health Advisory Committee letter or two individual letters of recommendation
- 7. Any other supporting credentials specifically requested by the Office of Admissions

Students must complete the application online and then order all letters of recommendation and official transcripts to be sent to the UMHS North American Administrative Office:

#### University of Medicine and Health Sciences (UMHS)

North American Administrative Office 275 7th Ave, 26th Floor New York, NY 10001

## Required Documents and Fees

#### **Application Fee**

Applicants must submit a \$75 application fee (waived for students choosing to submit their AMCAS). The fee may be paid online or by sending a check or money order to the UMHS North American Administrative Office. This fee is nonrefundable.

#### **Application Certification Form**

Upon submission of the online application for admission, confirmation of receipt will be provided to the applicant via email. Included will be further instructions for completing the application file in addition to a certification form, which must be signed by the applicant and returned to the Office of Admissions.

#### Open-ended Questions and Personal Statement

Included in the online application are several short-answer questions and a space to write a personal statement. These are an important component of the overall application and will be evaluated closely by our admissions committee when weighing a students' potential for candidacy.

#### **Official Transcripts**

Applicants should request official transcripts from all previously attended colleges and universities. Unofficial transcripts provided by the applicant will be accepted only for the purposes of an initial evaluation. In cases where the college/university attended is outside of North America, an official evaluation performed by a NACES-approved evaluation agency must be submitted, as well.

#### **MCAT Scores**

The Medical College Admission Test (MCAT) is required for all U.S. citizens, permanent residents, and those who completed their undergraduate education in the U.S. Applicants must submit results of all MCAT attempts with their application. While not required for non-U.S. citizens, the MCAT is strongly recommended for all applicants, specifically those who are Canadian citizens or residents. The best way to submit your MCAT score is to upload a screenshot of your scores in the document upload section of the online application. You may also print your scores and mail them to our New York office, or email them admissions@umhs-sk.net. Questions about the MCAT, including applications, test dates, and testing locations should be directed to:

#### **Medical College Admissions Test Registration**

The American College Testing Program P.O. Box 414 lowa City, IA 52243

Phone: 319-337-1276

#### **Letters of Recommendation**

It is preferred that applicants who have completed their pre-medical coursework at a college or university where there is a Pre-Professional Advisory Committee submit a letter of recommendation from that committee. Applicants who have attended a school at which there is no Pre-Professional Advisory Committee must have at least two letters of recommendation from faculty members at their university. One of these letters should be from a faculty member in the department of the applicant's major and the other should be from a science faculty member. Applicants are encouraged to submit one or two additional letters of recommendation from individuals with whom they have worked closely. These can be from faculty, employers, research mentors, or volunteer directors. Letters of recommendation in support of a UMHS applicant should be printed on appropriate letterhead, signed, and sent by mail to the UMHS North American Administrative Office. Letters of recommendation may be submitted via email by the recommender if they are in PDF format on appropriate letterhead with a signature.

## **Application File Review**

#### **Preliminary Evaluation**

After you have completed the online application and all of your supporting documents have been received, the Faculty Admissions Committee will conduct a preliminary evaluation of your credentials. If it is determined that you meet our minimum qualifications, you will be invited to schedule a personal interview.

#### Personal Interview

Qualified applicants will be contacted by an admissions counselor to arrange for their personal interview. Applicants will be given an opportunity to discuss their academic record and provide any other background information that will help the admissions committee to assess the student's maturity, aptitude, and motivation.

### **Application Decision**

Applicants can anticipate admissions decisions to be made within two to three weeks after the personal interview is conducted. Applicants will be notified by email of the official admissions decision reached by UMHS Faculty Admissions Committee. The decision-making timeline may be extended during semester breaks and holiday periods.

There are five decision options:

- Acceptance: The applicant has been accepted to attend UMHS in the requested entry term.
- Acceptance/Wait-List: The applicant has been accepted to attend UMHS; however, if their intended semester of matriculation is full, the applicant is placed on a wait-list and confirmed for the next available semester. If a vacancy occurs, the applicant may still attend their original intended semester.
- 3. Acceptance to the Extended Basic Science Program (EBS): The Extended Basic Science Program is designed for entering students who wish to spread the work of the first four semesters of medical school over a five-semester period instead. The EBS program is described in detail on page 13.
- 4. The Accelerated Review Program (ARP): This program is designed for students who have the potential to become successful physicians, but need additional academic foundation work and study skills preparation to ensure their success in the rigorous UMHS medical education program. Additional details are provided here: <a href="https://www.umhs-sk.org/accelerated-review-program">https://www.umhs-sk.org/accelerated-review-program</a>.
- 5. **Denial:** The applicant has not met the minimum entrance qualifications as determined by the UMHS Faculty Admissions Committee. An applicant may appeal this decision in writing, and must supply additional supporting documentation for review by the Admissions Committee.

#### **Accepted Students**

Upon acceptance to UMHS, students will begin to work with a designated staff member for assistance and instruction on all aspects of the enrollment process. A highly detailed Welcome Packet, which contains all instructions and forms to complete the enrollment process, is provided at the time of acceptance. Learn more about the enrollment process at:

https://www.umhs-sk.org/accepted-students.

The University of Medicine and Health Sciences admits students without regard to race, color, national origin, gender, religion, disability, or age to all rights, privileges, programs, and activities generally made available to students at the University. It does not discriminate on the basis of race, color, national origin, gender, religion, disability, or age in the administration of its educational programs and other University administered policies.

### Transfer Policy/ Advanced Standing

UMHS considers potential transfer applicants who have completed prior medical school coursework (in a similarly structured M.D. program) on a per-case basis. The latest entry point for transfer students is the fifth semester, which is located at our campus in Portland, Maine. The fifth semester consists of two courses: Introduction to Clinical Medicine II and Biological Basis of Medicine, which includes an intense 15-week USMLE review and preparation through our partnership with Kaplan Medical. Students who have successfully completed USMLE Step 1 and wish to transfer must pass a shortened, modified fifth semester which still includes the Introduction of Clinical Medicine II course. Please note that UMHS does not accept transfers directly into the third— or fourth-year Clinical Science Program.

To be considered for admission with advanced standing, transfer applicants must complete the UMHS application for admission (available at:https://www.umhs-sk.org/apply) and meet all UMHS prerequisite requirements, including successful completion of all prescribed undergraduate courses. In addition to transcripts from their prior medical school(s) and a dean's letter from that medical school, applicants must submit copies of all undergraduate and graduate school transcripts, two letters of recommendation, the application fee, and MCAT results (if applicable). USMLE results must also be submitted for all attempts made.

For more information on transferring to UMHS, please contact the Office of Admissions toll-free at 866-686-0380, direct at 212-868-0855, or via email at admissions@umhs-sk.net.

Students interested in transferring out of UMHS to another school should contact those schools directly to obtain their transfer policies and requirements for advanced standing. Please be advised that transfer policies for both U.S. and Caribbean schools vary greatly depending upon the school and location.

## **Tuition and Fees**

## Fee Schedule

#### Basic Science Tuition: Semesters 1-4

| BASIC SCIENCE PROGRAM (**13-29 CREDITS) | PER-SEMESTER FEE  |
|---|-------------------|
| Basic Science Tuition                   | \$13,700          |
| Lab Fees                                | \$800             |
| Student Government Association          | \$30              |
| Evacuation Insurance                    | \$105             |
| Health Insurance (age-based)            | \$278-\$669       |
| TOTAL                                   | \$14,913-\$15,304 |

#### Extended Basic Sciences Tuition: Semesters 1-5

| EXTENDED BASIC SCIENCE PROGRAM (**13-26 CREDITS) | PER-SEMESTER FEE  |
|--|-------------------|
| Extended Basic Sciences Tuition                  | \$11,430          |
| Lab Fees   | \$800             |
| Student Government Association Fees              | \$30              |
| Evacuation Insurance                             | \$105             |
| Health Insurance (age-based)                     | \$278–\$669       |
| TOTAL  | \$12,643-\$13,034 |

#### Fifth Semester: Maine

| FIFTH SEMESTER: MAINE (11 CREDITS) | PER-SEMESTER FEE  |
|------------------------------------|-------------------|
| Fifth Semester Maine Tuition       | \$16,350          |
| Liability Insurance                | \$344             |
| Health Insurance (age-based)       | \$375–\$903       |
| TOTAL                              | \$17,069-\$17,597 |

### Clinical Science Tuition: Semesters 6-10

| CLINICAL SCIENCE PROGRAM     | PER-SEMESTER FEE  |
|------------------------------|-------------------|
| Clinical Science Tuition     | \$16,350          |
| Liability Insurance          | \$344             |
| Health Insurance (age-based) | \$375–\$903       |
| TOTAL                        | \$17,069-\$17,597 |

### **Accelerated Review Program Tuition**

| ACCELERATED REVIEW PROGRAM          | PER SEMESTER FEE |
|-------------------------------------|------------------|
| Accelerated Review Program Tuition  | \$8,850          |
| Student Government Association Fees | \$30             |
| Evacuation Insurance                | \$105            |
| Health Insurance (age-based)        | \$278–\$669      |
| TOTAL                               | \$9,263-\$9,654  |

#### **Effective: Sept 2021**

Tuition and fees are subject to change without notice.

Tuition is assessed based on student classification, program of study and the number of credits for which a student is registered.

\*\* Tuition will be prorated for total registered credits in the Basic Sciences (BAS) and Extended Basic Sciences (EBS) which fall below the semester credit range stated above. The charge will be at a rate of \$875 per credit. Tuition in fifth semester—Maine will be pro-rated at a rate \$1,000 per credit for students that are registered for less than 11 credits. Tuition for the Clinical program (Sem 6-10) will be pro-rated at a rate of \$1,000 per credit/rotation week, plus the cost of liability insurance for those students scheduled for more than 78 weeks of rotation. Any necessary adjustments to accounts will be made upon official notification from the Registrar.

A student failing any course in any semester will be required to repeat that course and will be charged in accordance with the tuition and fees schedule.

#### **Payment Options:**

(All payments must be in U.S. dollars and drawn from a U.S. bank)

- 1. Check
- 2. Money order
- 3. Credit card (MasterCard and Visa)
- 4. Wire transfer

## Estimated Cost of Attendance

To learn more about the estimated cost of attendance and how to financially plan for your education at UMHS, please refer to the Financial Aid section of the website.

Learn more about the Estimated Cost of Attendance on page 90.

## **Tuition Refund Policy**

Students who officially withdraw from the university will have their refunds, if any, calculated according to the tuition refund schedule that is published in the Student Handbook and website. The percentage of refund is based on the actual date of withdrawal recorded by the Registrar. This may not necessarily result in a refund, and in some instances, a tuition balance may still be due. Insurance and fees are non-refundable. Refunds are mailed directly to the student's permanent address by the Bursar's Office.

When withdrawing from the University, a student is required to complete and file the appropriate form before being entitled to any credit or refund of tuition. The completed document must be returned to the Registrar's office. Once the form is processed, it will constitute an official withdrawal from the University. Discontinued attendance or notification to the instructor or any other office will not constitute an official withdrawal.

The effective date of a withdrawal is normally the student's last date of attendance. The University's handling of tuition and charges corresponds with federal loan entitlement regulations, which are based on the period attended:

- 1. If a student withdraws prior to the start of a semester, no tuition charges are due.
- 2. If a student withdraws within the first 60 percent of a semester, tuition is prorated based on the number of days attended during that term.
- 3. If a student withdraws after the first 60 percent of a semester, full tuition/charges remain due.
- 4. For withdrawals during the first 60 percent of a semester, student loan entitlement is recalculated in accordance with federal loan regulations. If applicable, the University and the student are each proportionally responsible for returning "unearned" loan funds to lenders. In addition to the lender returns required by federal regulations, the University returns any remaining credit balance to lenders, which decreases the student's loan debt for that semester.
- 5. All self-paying students (non-financial aid) who officially withdraw from the University during the first 60 percent of a semester may receive a tuition refund in accordance with the prorated tuition standard listed above.

Although a leave of absence may be authorized in limited circumstances, failure to return to school from a leave of absence is considered a withdrawal as of the last date of attendance.

Under federal regulations, a leave of absence: must be requested and approved in advance; may not exceed 180 days; and may not be granted within 12 months of a previous leave of absence. An interruption of enrollment status that does not qualify as a leave of absence is considered a withdrawal as of the last date of attendance.

Information about registration, benefits, and coverage are given to students at orientation.

#### **Bursar Department**

275 7th Ave., 26th Fl. New York, NY 10001 Phone: 212-868-0855 Fax: 212-868-4725

Email: bursar@umhs-sk.net

### **Tuition and Fees**

The University understands the significance of student debt load and has purposefully established tuition at a value that makes the academic program affordable, and that is far below that of many other medical schools. We pride ourselves on providing a quality education at an affordable price.

There are two categories of costs associated with attending an educational institution; direct and indirect.

#### **Direct Costs**

Direct costs are those associated specifically with the educational process. Direct charges include tuition, lab fees, course fees, medical and evacuation insurance, and applicable registration fees. These are billed directly from the University to the student.

#### **Indirect Costs**

Indirect costs include, but are not limited to housing, living expenses, books, supplies, and transportation. Students are responsible for indirect expenses. UMHS does not bill nor receive money for indirect costs.

Although calculating financial aid eligibility involves the total of all direct and indirect expenses, students will only be billed for the direct costs at UMHS. Students who qualify may choose to apply for available loan programs to assist with their educational and (if applicable) living expenses.

#### **Direct Costs**

#### **Health Insurance**

Health insurance is required for all students enrolled at UMHS. Enrollment in the medical health insurance plan offered by UMHS is automatic unless proof of health insurance is provided by the student before or during registration. The cost of health insurance purchased through UMHS varies depending upon a student's age. The cost is billed at the beginning of each semester.

#### **Evacuation Insurance**

Students are required to have evacuation insurance while living on St. Kitts. In the event of a medical emergency where a student may need to be evacuated to a U.S. hospital, this would cover that cost. Enrollment in the medical evacuation insurance plan offered by UMHS is automatic. It is due at the beginning of each semester.

#### **Liability Insurance**

Liability insurance is required for every student during the fifth semester at the Portland, Maine, campus and while completing clinical rotations at any UMHS-affiliated teaching hospital. Students will be provided further details regarding liability insurance prior to returning to the U.S. for the fifth semester.

#### **Laboratory and Competency Testing Fees**

Students are responsible for laboratory and competency testing fees each semester. The laboratory fee will be billed along with tuition for all semesters in St. Kitts.

#### **Indirect Costs**

While UMHS only bills for direct costs, students should also take into account indirect costs when planning their financial needs. These include:

#### **Books and Equipment**

Students receive a list of the required books, supplies, and uniforms which they will need to purchase for each semester. The most efficient way to obtain these items is through the Campus Bookstore located on our campus in St. Kitts. Students can purchase all their books and supplies during registration. All books offered will be the latest editions available at the time of shipping.

If you purchase books in advance of matriculating to campus, be aware that airlines have weight restrictions for checked luggage. Be sure to verify the luggage weight limit for your airlines beforehand. Students may ship their books to campus through either Amerijet or Tropical Shipping.

#### **Tablet/Laptop Computers**

Students are required to bring a laptop/tablet computer to campus as of the first semester. UMHS has followed the lead of U.S. medical schools in developing a digital library of histological and pathological images. Students can use their computers to manipulate the images and resolution to optimize their learning experience.

More detailed information about laptop and tablet requirements can be found at <a href="https://www.umhs-sk.org/technology-requirements">https://www.umhs-sk.org/technology-requirements</a>. For questions about laptop/tablet computer requirements, contact IT Director Wayne Williams at wwilliams@umhs-sk.net.

#### **Transportation Costs**

Students are required to pay for their airfare to the island and all travel costs to clinical sites in the U.S. and Canada. UMHS provides transportation for all students to and from campus and their housing locations on St. Kitts. Students may choose to purchase or lease a car from a private individual for the time they are in St. Kitts. The costs associated with purchasing and maintaining a used car can vary widely and range between \$3,000 to \$5,000. Students should be aware that the vehicle purchase is solely the student's responsibility and not a function of any office at the University. Students should check the campus bulletin boards for advertisements on used cars.

#### **Living Expenses**

Students need to budget for typical living expenses, including housing, utilities, food, local transportation, and entertainment. Costs will vary based on the level of accommodation and location.

## Student Financial Assistance

## **Financial Aid**

It is never too early to start thinking about how to finance your medical education. While the financial aid process may seem daunting for many students, the financial aid counselors at UMHS can help you build a successful financial plan for your future as a healthcare professional. UMHS offers several forms of financial aid for those who qualify.

As soon as you submit your admission application, you should start reviewing all of the information in the financial aid section of our website. Once accepted, and within 180 days of your anticipated matriculation term, you will receive a financial aid package to the email address you entered on your admission application. Once you have read your financial aid package, you should call for counseling. As soon as you get the financial aid package email, follow the instructions to start your application for any loan necessary.

It is important to review and understand how your existing education debt, personal financial resources, and credit history may impact your ability to finance your medical education. You will always get an honest evaluation of your financial preparedness to attend UMHS. Should it be determined that you may lack the ability to finance your education at the moment, we will be straightforward with our professional evaluation and help you plan for the future.

Once you are an enrolled student, the Office of Financial Aid will continue to guide you down a healthy financial path. Credit counseling is always available as you progress through the educational program at UMHS.

## Financial Aid Planning and Counseling

All students are advised to call or visit the Office of Financial Aid, prior to matriculation, to discuss and develop a viable financial plan for their education. After counseling and plan development, you will understand:

- How much money you will need, when you will need it, and where you will get it from.
- 2. Your credit report and how credit history affects your ability to obtain student loans.
- 3. What you can do to build good credit and how debt management can help maintain your financial health.
- 4. What you need to do for any existing student loans you may have while you are enrolled in UMHS.

# Loan Programs for U.S. Citizens and Permanent Residents

Borrowing funds to pay for educational costs is a tremendous responsibility. All loans borrowed must be repaid, regardless of your academic or professional success. If you default, you risk ruining your credit, which can burden you for up to 10 years and can affect your ability to secure credit, housing, or even employment. Thus, we urge you to borrow only as much as you absolutely need to cover your educational expenses, which may not be your full cost of attendance. Student loans have varying interest rates and terms of length that can affect the total amount a borrower will pay over the life of the loan. Typically, repayment begins after students have completed their education.

A student will not be permitted to borrow more than the cost of attendance for each loan period. Even if a student loan is credit approved by a lender for an amount larger than the cost of attendance, the Office of Financial Aid can only certify a maximum amount equal to that of your total cost. Consumer or other personal debt (credit cards, mortgages, car payments, legal fees, family support, etc.) cannot be included in the cost of attendance. Please refer to the Cost of Attendance (page 90) for an explanation of what is included in the COA.

It is important to know what is on your credit report. You are eligible for a free copy of your report once a year, and any time you are denied housing, insurance, employment, or credit based on the data in your report. You can get your free annual copy online at: https://www.annualcreditreport.com.

Since Sallie Mae is our main provider of aid, it is especially important to review your TransUnion report, as this is the agency Sallie Mae will likely use to assess your creditworthiness. Your score is not as important as the detailed account histories contained in your full report. These historic credit details are what the lender will base their credit decision on. Full cost of attendance for each loan period can be covered by Sallie Mae's Smart Option Loan. Your cost of attendance and the semesters included in your loan period will vary according to your progress through the curriculum. The cost of attendance budgets for both the standard M.D. curriculum and the EBS curriculum can be found at: www.umhs-sk.org/cost-of-attendance. You will also get a financial aid package via email with your personal COA prior to each award year start.

## Sallie Mae Medical School Loan Program

UMHS has partnered with Sallie Mae to offer their Medical School Loan program to UMHS students of U.S. citizenship or U.S. Permanent Residency. The Sallie Mae Medical School Loan Program is a private educational loan. This means that it is not subsidized by the federal government, nor is an approval guaranteed. The lender's decision to approve a loan request will be based on the student's, and any co-signer's, creditworthiness as displayed by the data in their credit report. This may also include a review of the applicant's debt-to-income ratio.

#### Features of the Medical School Loan

- Easy online application.
- Three repayment options to choose from, including deferred until after graduation or minimum monthly payments while in school.
- Competitive interest rates, with the choice of variable or fixed rate once your request is approved.
- Up to 20 years to repay with no prepayment penalties.
- · 36-month grace period.
- Up to 48 months of residency and internship deferment.
- There is no cosigner requirement; however, applying with a creditworthy cosigner may help you qualify and/or receive a lower interest rate.

To download brochures about these loans or to access applications, visit: <a href="https://www.umhs-sk.org/us-loan-program">https://www.umhs-sk.org/us-loan-program</a>.

PLEASE DO NOT APPLY FOR ANY LOANS UNTIL YOU RECEIVE YOUR FINANCIAL AID PACKAGE EMAIL.

You will get a financial aid package at the appropriate time to apply or reapply. Please be sure to wait for those instructions before submitting any applications to Sallie Mae.

## Sallie Mae Residency and Relocation Loan Program

The Residency and Relocation Loan from Sallie Mae allows students to finance the costs associated with finding a medical residency, including travel to interviews and relocation costs. If you're enrolled at least half time in your final year of study, or have graduated from medical school in the last 12 months, you can use the loan to cover board examination expenses, as well as other expenses not included in your school's cost of attendance.

Apply online directly to Sallie Mae: https://www.salliemae.com/student-loans/global-residency-loan.

## UMHS Institutional Loan Program

UMHS maintains an emergency loan program for students who have been unsuccessful at qualifying for Sallie Mae's Smart Option Loan. This University-funded program provides small, per-term loans to students who have made a concerted effort to obtain funding for the upcoming term and have fallen short of their need. Loans approved under this program are applicable towards tuition only. Students must have been denied by Sallie Mae. Contact the Office of Financial Aid for further information and to determine eligibility.

## In-school Deferment for your Previous Student Loans

Students who have borrowed previous education loans need to be diligent about monitoring the status of ALL existing student loan accounts while enrolled at UMHS.

Since UMHS has not been approved to participate in the federal student aid programs, any existing student loans will not be eligible for in-school deferment. UMHS also does not automatically report enrollment to lenders.

In-school deferment forms require a federal school code. UMHS does not have a federal school code. If a deferment form is submitted to the Registrar, the form will be completed, less the school code field, and submitted to your lender. Approval is not guaranteed. You must monitor your accounts to ensure the outcome of your deferment request. If your deferment is not approved by your lender, you should be able to apply for forbearance.

# Financial Aid Options for Canadian Students

Most major banks in Canada (Scotia, NBC, RBC) offer lines of credit for students studying outside Canada. These educational lines of credit are specifically designed to fund the costs associated with the student's studies.

For students studying outside of Canada, most lenders will require a credit-worthy cosigner in order for the student to obtain an approval. Approvals are made at the discretion of the local branch where the application is submitted. Students are advised to apply at the location they and/or their cosigners conduct most of their banking transactions. Credit-based loans and lines of credit are typically approved for students and their cosigners who have a good credit rating.

Accepted students should provide the bank with a copy of their letter of admissions along with a printout of the UMHS IMED directory listing (https://www.wdoms.org) and the CaRMS Eligibility Criteria (https://www.carms.ca/the-match).

#### **Provincial Student Loans**

Canadian students are eligible for Provincial Loans in the province of residence—for example, Ontario residents are eligible for an Ontario Student Assistance Program (OSAP) loan. Students may apply for up to 52 weeks of financial assistance annually. Canadian students should contact their individual provinces directly for information regarding additional requirements.

Additional information may be available from the provincial and territorial student financial assistance offices:

#### Alberta:

studentaid.alberta.ca

#### **New Brunswick:**

www2.gnb.ca

#### Newfoundland Labrador:

aes.gov.nl.ca/studentaid/apply

#### **Northwest Territories:**

nwtsfa.gov.nt.ca

#### **Nova Scotia:**

studentloans.ednet.ns.ca

#### Ontario:

osap.gov.on.ca/OSAPPortal

#### **Prince Edward Island:**

studentloan.pe.ca

#### Saskatchewan:

saskatchewan.ca/studentloans

# Veterans Administration (VA) Education Benefits

## UMHS Welcomes U.S. Veterans

The University of Medicine and Health Sciences is pleased to announce that it is approved by the Department of Veterans Affairs (VA), enabling eligible veterans, service persons, and certain dependents of veterans to receive VA educational benefits. Eligible persons may receive benefits under one of several types of GI Bills:

Chapter 30-Montgomery GI Bill®

Chapter 31-Disabled Veterans Vocational Rehabilitation Program

Chapter 32-Veterans Educational Assistance Program (VEAP)

Chapter 33-Post 9/11 GI Bill®

Chapter 35-Dependents Educational Assistance Program

Chapter 1606—Montgomery GI Bill® Selected Reserve Educational Assistance Program

Chapter 1607-Reserve Educational Assistance Program (REAP)

For a complete description of each chapter, please visit www.benefits.va.gov/gibill. GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA).

## How to Apply

We encourage new UMHS applicants to visit <a href="www.benefits.va.gov/gibill">www.benefits.va.gov/gibill</a> and fill out the available online application. You will receive a Certificate of Eligibility. Please note that the UMHS Office of the Registrar will require a copy of your paperwork.

You may also need the following records: Form DD 214, Report of Separation or Discharge; or Form DD 2384, Notice of Basic Eligibility (NOBE) if you are a Reservist or National Guard member.

Benefits will vary by program, so it's important to visit the VA site for further details. The monthly benefit paid to you is based on the type of training, length of service, category, and participation in the MGIB Fund. For information, visit the Education Benefit Payment Rates page.

## Applying for Chapter 31-Disabled Veterans Vocational Rehabilitation Program

A veteran who is eligible for an evaluation under Chapter 31 must first apply for services and receive an appointment with a Vocational Rehabilitation Counselor (VRC). Please visit <a href="https://www.benefits.va.gov/vocrehab/index.asp">www.benefits.va.gov/vocrehab/index.asp</a> for further information on eligibility and applying for benefits. If eligible, you will receive your VA Form 28-1905 from your counselor that lists the dates of your Chapter 31 eligibility and the degree program authorized. This form must be submitted to the UMHS Office of the Registrar, along with the IEVER form.

As with the other benefit chapters, you must submit the IEVER each semester in order for UMHS to certify your continued enrollment or whenever there is a change in your status.

#### **Student Responsibilities**

In order to begin receiving Veterans Affairs (VA) education benefits as a UMHS student, you must complete an initial application with the VA. These forms are available at <a href="https://gibill.va.gov/apply-for-benefits">https://gibill.va.gov/apply-for-benefits</a>. After you receive the Certificate of Eligibility, please submit a copy to the UMHS Office of the Registrar.

The IEVER form must then be submitted each semester by students who are receiving VA education benefits so that UMHS can verify Enrollment Certification on VA-ONCE. Certification is required by the VA in order for students to continue receiving VA education benefits.

Per the VA Benefit Administration, UMHS is required to report a change in student status, including:

- 1. Withdrawal
- 2. Leave of absence
- 3. Vacation (only after completing fifth semester)
- 4. Temporary withdrawal (any time there is a gap in curriculum that is not an approved leave or vacation period)
- 5. Less than full-time status (applicable only during Basic Sciences)
- 6. Student graduated

UMHS is also required to report the following enrollment-related information:

- Certify that enrollment is only for those subjects that apply to the student's program
- $2. \ Report \ when \ a \ student \ was \ dismissed \ due \ to \ unsatisfactory \ progress$
- Report when a student is suspended or dismissed for unsatisfactory conduct

The IEVER form must be submitted to the UMHS Office of the Registrar within one week of a change in status and during the 12th week of the current enrollment in order to have enrollment verified for the following term. Please note that official enrollment certification will not occur until after each term's in-person registration period or when there has been verification of attendance in a clinical rotation. The change in status reporting will be completed within 30 days of any action.

## **UMHS Veterans Scholarship**

We are proud to offer the Robert Ross Veterans Scholarship. This is a need—and merit-based scholarship that is available to veterans, servicemen, and servicewomen during Basic Science. Students may be eligible for up to \$1,000 per semester. Students interested in the program should contact the Office of Financial Aid (finaid@umhs-sk.net) for further details.

## VA Benefits Used at a Prior School

If you are a veteran who previously received benefits at another institution, you must complete a Request for Change of Place of Training (VA Form 22-1995) and return it to the VA Office and the UMHS VA Certifying Official, along with copies of your DD form 214 (Discharge from Active Duty) and Certificate of Eligibility.

### **Questions About Benefits**

If you have any questions regarding VA education benefits, you may contact the VA Regional Office at 1-800-827-1000. Please note that the Eastern Region Office handles applications for foreign schools.

### **Contact Information**

UMHS VA Certifying Official Dr. Brijette Sena Office of the University Registrar 275 7th Ave. 26th Floor New York, NY 10001

Department of Veterans Affairs VA Education Service

www.gibill.va.gov

1-888-GIBILL-1 (1-888-442-4551)

VA Regional Office—Eastern Region and Foreign Schools

P.O. Box 4616

Buffalo, NY 14240-4616 Phone: 1-800-827-1000

Fax: 716-551-3241

## Scholarships

## Dean's Scholarship, President's Scholarship, And Founder's Scholarship Programs

The Dean's, President's, and Founder's Scholarships are merit-based awards provided to qualified students as new matriculates. Awards granted under these programs are based on the academic strengths shown in each accepted student's admission application file. All accepted students are considered for these programs. No additional application is required to apply. Awards granted under these programs are applicable towards tuition for Basic Science semesters attended on the St. Kitts campus. A comprehensive review of the accepted student's admissions file is conducted to determine award amounts. We will weigh all cumulative GPAs, as well as GPAs for all premedical coursework, advanced biology coursework, and graduate and medical school coursework.

#### Dean's Scholarship

Award amount is \$1,250/term or \$1,000/term for students in the EBS program.

#### President's Scholarship

Award amount is \$1,500/term or \$1,200/term for students in the EBS program.

#### Founder's Scholarship

Award amount is 1,750/term or 1,400/term for students in the EBS program.

Recipients will be notified via email. Terms of each award will be outlined in the award letter.

### Dr. William Thurman Scholarship for Academic Excellence

Founding Provost, Dr. William Thurman, made an enormous contribution to the creation and development of UMHS. His spirit of professionalism, along with a clear student-centered approach, lives on and is part of the UMHS ethos. Dr. Thurman loved medicine and always inspired students to achieve greatness. To honor his memory and lasting impact on our University, the Board of Trustees has established the Dr. William Thurman Scholarship for Academic Excellence. This scholarship will be awarded to exemplary students who demonstrate academic excellence during their clinical semesters.

The Dr. Thurman Scholarship was implemented on September 1, 2018. The scholarship is awarded towards semesters 6–10. All clinical semesters starting on or after September 1, 2018 are considered. This scholarship will not be applied retroactively. The Dr. Thurman Scholarship for Academic Excellence bears a per-semester award of \$1,000 for students meeting the following criteria:

- Must maintain a minimum CGPA of 3.80 for an award toward any clinical semester
- Must be in good academic standing for an award toward any clinical semester
- Must earn a score of 240 or higher on a first attempt at USMLE Step 1 for a semester six award
- Must achieve a minimum of 75 on the first attempt of all NBME Core Shelf exams, for an award toward semesters seven, eight, and nine
- Must earn a score of 240 or higher on first attempt at USMLE Step 2 CK for a semester 10 award

As of June 2018, in recognition of the graduating student demonstrating the highest academic achievements, the scholarship grants an annual award to the valedictorian in the amount of \$2,500. The award is disbursed directly to the valedictorian at graduation.

Students who have any questions should contact Dr. Brijette Sena, Associate Dean of Academic Administration, at bsena@umhs-sk.net. There is no application necessary. Students' academic records and NBME Core Subject and USMLE results will be reviewed each term. Any award granted will be applied to the appropriate semester.

## St. Kitts Scholarship

In concert with the Kittian Government, UMHS offers two significant scholarship awards to citizens of St. Kitts and Nevis. Students interested in applying for the Kittitian scholarship should contact the Human Resource Management Department, Office of the Prime Minister of the Federation of St. Christopher and Nevis. Government Headquarters P.O. Box 186, Church Street, Basseterre, St. Kitts, email humanresources@gov.kn, or call 869-467-1040.

## **Third-party Scholarships**

The White Coat Investor Scholarship provides several awards based on total funds raised. You must have a valid U.S. Social Security number to apply.

## Cost of Attendance

The Cost of Attendance (COA) budgets below demonstrate the realistic anticipated expenses students can expect to incur while enrolled in the University of Medicine and Health Sciences' Doctorate of Medicine (M.D.) program. All figures are based on a typical student's expenses for each identified enrollment period/award year. Cost of attendance budgets, by federal regulation, are designed for a student to live and support themselves modestly, like a student, during the instructional time. Some of these expenses will be billed by the school; others are indirect expenses for which the student must budget.

Students may not receive a total amount of aid, from all sources (student loans, scholarships, grants, VA benefits), in excess of their COA for any term or loan period. Aid cannot be applied to items not included in the cost of attendance. Expenses such as family support, mortgage/rent for a second residence (home), credit card debt, or car payments cannot be included in the cost of attendance.

## Expenses Included in the Cost of Attendance

#### **Tuition**

Tuition fees cover the costs of classes. Effective for the Fall 2021 term, tuition will be charged at a rate of \$13,700 for Basic Science semesters and \$11,430 for Extended Basic Science semesters attended in St. Kitts. Tuition for semester five, attended at the Maine campus, and for all clinical semesters attended at approved U.S. hospital sites, is charged at \$16,350 per semester. Your actual tuition and individualized cost of attendance budget may differ as per your curricular path and registration data.

#### **Room and Board**

Students need to budget for typical living expenses incurred during daily life: housing, utilities, food, etc. Estimates provided anticipate that students will live in safe, comfortable, but modest accommodations. This will generally mean living like a student with a roommate. Costs for housing expenses are calculated at \$1,100 per month. Food allowance is included at \$100 per week. Housing for the fifth semester in Maine is included at \$1,200 per month.

#### **Transportation Fees**

The expense of traveling to and from the island, as well as on the island, are included in your cost of attendance. \$900 for one round-trip air ticket per semester is included, as well as \$15 per week for transportation expenses on the island; \$50 per week during clinical semesters.

#### **Books and Supplies**

Accepted students will be provided with a list of the books and supplies to purchase each semester. The average cost for books and supplies is \$700 per Basic Science semester. Books for semesters one and two are typically bought at the beginning of semester one. Actual expense will vary for EBS and Clinical students.

#### **Fees**

In addition to tuition, students are responsible for administrative, lab, and student government fees each semester. There is an \$800 charge per semester to cover lab and administrative fees for Basic Science semesters. Students enrolled in a semester at UMHS' St. Kitts campus will also be charged a \$30 student government fee each semester.

#### **Personal Incidentals**

A \$50 per week allowance for any miscellaneous personal expenses students may incur is included.

#### **Health and Air Evacuation Insurance**

All students are required to have medical and emergency evacuation insurance. If you do not have coverage, you will be given the option to purchase insurance through UMHS. If you already have health insurance, be sure to contact your provider to ensure coverage will remain effective while you are attending school outside of the U.S. A median rate of the school-sponsored policy is included in the COA for health insurance, as well as the actual per-semester charge for air evacuation insurance.

#### **Liability Insurance**

In order for students to participate in clinical training, liability insurance will be required while at any U.S. affiliate clinical site.

#### **Graduation and Post-Graduation**

There will be additional fees associated with graduation ceremonies (i.e. school pins, photos, cap and gown). Graduation and post-graduation expenses are not included in your cost of attendance. The fee for graduation is currently \$500.

#### Study Review

Study review courses and relocation expenses are not included in your cost of attendance. These expenses are not eligible to be included in the cost of attendance or for student aid. However, other resources may be available specifically for financing these additional expenses, which fall outside of your required curriculum.

## Estimated Cost of Attendance: M.D. Program

(Effective Fall 2019)

## M.D. Program: First Award Year

| ITEMIZED EXPENSES         | SEM 1    | SEM 2    | SEM 3    | TOTAL    |
|---------------------------|----------|----------|----------|----------|
| Tuition                   | \$13,700 | \$13,700 | \$13,700 | \$41,100 |
| Room and Board            | \$7,000  | \$5,900  | \$5,900  | \$18,800 |
| Transportation            | \$1,125  | \$1,125  | \$1,125  | \$3,375  |
| Books and Supplies        | \$1,600  | \$700    | \$1,000  | \$3,300  |
| Lab and Misc. School Fees | \$830    | \$830    | \$830    | \$2,490  |
| Personal Incidentals      | \$750    | \$750    | \$750    | \$2,250  |
| Air Evacuation Insurance  | \$105    | \$105    | \$105    | \$315    |
| Health Insurance          | \$400    | \$400    | \$400    | \$1,200  |
| TOTAL                     | \$25,510 | \$23,510 | \$23,810 | \$72,830 |

## M.D. Program: Second Award Year

| ITEMIZED EXPENSES         | SEM 4    | TOTAL    |
|---------------------------|----------|----------|
| Tuition                   | \$13,700 | \$13,700 |
| Room and Board            | \$5,900  | \$5,900  |
| Transportation            | \$1,125  | \$1,125  |
| Books and Supplies        | \$700    | \$700    |
| Lab and Misc. School Fees | \$830    | \$830    |
| Personal Incidentals      | \$750    | \$750    |
| Air Evacuation Insurance  | \$105    | \$105    |
| Health Insurance          | \$400    | \$400    |
| TOTAL                     | \$23,510 | \$23,510 |

## M.D. Program: Third Award Year

| ITEMIZED EXPENSES                   | SEM 5    | TOTAL    |
|-------------------------------------|----------|----------|
| Tuition                             | \$16,350 | \$16,350 |
| Room and Board                      | \$6,350  | \$6,350  |
| Transportation                      | \$1,675  | \$1,675  |
| Books and Supplies                  | \$500    | \$500    |
| Personal Incidentals                | \$775    | \$775    |
| Health Insurance                    | \$486    | \$486    |
| Liability Insurance                 | \$350    | \$350    |
| ACLS Course                         | \$250    | \$250    |
| Application for ECFMG Certification | \$135    | \$135    |
| USMLE Step 1                        | \$940    | \$940    |
| TOTAL                               | \$27,811 | \$27,811 |

## M.D. Program: Fourth Award Year

| ITEMIZED EXPENSES    | SEM 6    | SEM 7    | SEM 8    | TOTAL    |
|----------------------|----------|----------|----------|----------|
| Tuition              | \$16,350 | \$16,350 | \$16,350 | \$49,050 |
| Core Shelf Exams     | \$214    | \$214    | \$214    | \$642    |
| Room and Board       | \$6,000  | \$6,000  | \$6,000  | \$18,000 |
| Transportation       | \$1,700  | \$1,700  | \$1,700  | \$5,100  |
| Books and Supplies   | \$300    | \$300    | \$300    | \$900    |
| Personal Incidentals | \$800    | \$800    | \$800    | \$2,400  |
| Health Insurance     | \$486    | \$486    | \$486    | \$1,458  |
| Liability Insurance  | \$350    | \$350    | \$350    | \$1,050  |
| TOTAL                | \$26,200 | \$26,200 | \$26,200 | \$75,800 |

## M.D. Program: Fifth Award Year

| ITEMIZED EXPENSES    | SEM 9    | SEM 10   | TOTAL    |
|----------------------|----------|----------|----------|
| Tuition              | \$16,350 | \$16,350 | \$32,700 |
| Room and Board       | \$5,900  | \$5,900  | \$11,800 |
| Transportation       | \$1,650  | \$1,650  | \$3,300  |
| Books and Supplies   | \$300    | \$300    | \$600    |
| Personal Incidentals | \$750    | \$750    | \$1,500  |
| Health Insurance     | \$486    | \$486    | \$972    |
| Liability Insurance  | \$350    | \$350    | \$700    |
| USMLE STEP 2, CK     | \$940    |          | \$940    |
| USMLE STEP 2, CS     |          | \$1,580  | \$1,580  |
| TOTAL                | \$26,726 | \$27,366 | \$54,092 |

## Cost of Attendance for the EBS Program

## EBS Program: First Award Year

| ITEMIZED EXPENSES         | SEM 1    | SEM 2    | SEM 3    | TOTAL    |
|---------------------------|----------|----------|----------|----------|
| Tuition                   | \$11,430 | \$11,430 | \$11,430 | \$34,290 |
| Room and Board            | \$7,000  | \$5,900  | \$5,900  | \$18,800 |
| Transportation            | \$1,125  | \$1,125  | \$1,125  | \$3,375  |
| Books and Supplies        | \$1,500  | \$700    | \$700    | \$2,900  |
| Lab and Misc. School Fees | \$830    | \$830    | \$800    | \$2,490  |
| Personal Incidentals      | \$750    | \$750    | \$750    | \$2,250  |
| Air Evacuation Insurance  | \$105    | \$105    | \$105    | \$315    |
| Health Insurance          | \$400    | \$400    | \$400    | \$1,200  |
| TOTAL                     | \$23,140 | \$21,240 | \$21,240 | \$65,620 |

### EBS Program: Second Award Year

| ITEMIZED EXPENSES         | SEM 4    | SEM 5    | TOTAL    |
|---------------------------|----------|----------|----------|
| Tuition                   | \$11,430 | \$11,430 | \$21,860 |
| Room and Board            | \$5,900  | \$5,900  | \$11,800 |
| Transportation            | \$1,125  | \$1,125  | \$2,250  |
| Books and Supplies        | \$500    | \$500    | \$1,000  |
| Lab and Misc. School Fees | \$830    | \$830    | \$1,660  |
| Personal Incidentals      | \$750    | \$750    | \$1,500  |
| Air Evacuation Insurance  | \$105    | \$105    | \$210    |
| Health Insurance          | \$400    | \$400    | \$800    |
| TOTAL                     | \$21,240 | \$21,240 | \$42,480 |

### **EBS Program: Third Award Year**

| ITEMIZED EXPENSES                   | SEM 5    | TOTAL    |
|-------------------------------------|----------|----------|
| Tuition                             | \$16,350 | \$16,350 |
| Room and Board                      | \$6,350  | \$6,350  |
| Transportation                      | \$1,675  | \$1,675  |
| Books and Supplies                  | \$300    | \$300    |
| Personal Incidentals                | \$775    | \$775    |
| Health Insurance                    | \$486    | \$486    |
| Liability Insurance                 | \$350    | \$350    |
| ACLS Course                         | \$250    | \$250    |
| Application for ECFMG Certification | \$135    | \$135    |
| USMLE STEP 1                        | \$940    | \$940    |
| TOTAL                               | \$27,811 | \$27,811 |

## **EBS Program: Fourth Award Year**

| ITEMIZED EXPENSES    | SEM 6    | SEM 7    | SEM 8    | TOTAL    |
|----------------------|----------|----------|----------|----------|
| Tuition              | \$16,350 | \$16,350 | \$16,350 | \$49,050 |
| Core Shelf Exams     | \$214    | \$214    | \$214    | \$642    |
| Room and Board       | \$6,000  | \$6,000  | \$6,000  | \$18,000 |
| Transportation       | \$1,700  | \$1,700  | \$1,700  | \$5,100  |
| Books and Supplies   | \$300    | \$300    | \$300    | \$900    |
| Personal Incidentals | \$800    | \$800    | \$800    | \$2,400  |
| Health Insurance     | \$486    | \$486    | \$486    | \$1,458  |
| Liability Insurance  | \$350    | \$350    | \$350    | \$1,050  |
| TOTAL                | \$28,200 | \$28,200 | \$28,200 | \$78,600 |

## EBS Program: Fifth Award Year

| ITEMIZED EXPENSES    | SEM 9    | SEM 10   | TOTAL    |
|----------------------|----------|----------|----------|
| Tuition              | \$16,350 | \$16,350 | \$32,700 |
| Room and Board       | \$5,900  | \$5,900  | \$11,800 |
| Transportation       | \$1,650  | \$1,650  | \$3,300  |
| Books and Supplies   | \$300    | \$300    | \$600    |
| Personal Incidentals | \$750    | \$750    | \$1,500  |
| Health Insurance     | \$486    | \$486    | \$972    |
| Liability Insurance  | \$350    | \$350    | \$700    |
| USMLE STEP 2, CK     | \$940    |          | \$940    |
| USMLE STEP 2, CS     |          | \$1,580  | \$1,580  |
| TOTAL                | \$26,726 | \$27,366 | \$54,092 |

## Financial Aid Policies

#### **Aid Limits**

Students cannot receive total aid (loans + scholarships + grants + VA benefits + any other third-party aid) in excess of their annual cost of attendance (COA). Even if you are awarded aid in amounts greater than your cost of attendance, the financial aid office can only certify a maximum amount equal to that of your total cost for the loan period in question. Grants and scholarships will be applied to your COA before any loans. Loans will be reduced to accommodate any "free" money a student is awarded.

### Financial Aid Satisfactory Academic Progress Policy

In order to remain eligible for financial aid (loans, grants, scholarships) students must maintain satisfactory academic progress (SAP). SAP will be reviewed by the Financial Aid Office after each term. SAP guidelines are outlined by the Registrar and are available in the Student Handbook. Should a student fail to meet the guidelines upon completion of any given term, the following term's financial aid will be disbursed on a probationary status.

If a student fails to meet SAP requirements for a second consecutive semester, financial aid eligibility will be suspended until the student can regain good academic standing.

Though a student may not be eligible to receive financial aid, this does not mean they will not be permitted to attend. Students on financial aid suspension may continue to attend, so long as the Registrar permits and the student has an alternative source of financing.

## In-school Deferment of your Previous Student Loans

Students who have borrowed previous education loans need to be diligent about monitoring the status of ALL existing student loan accounts while enrolled at UMHS.

Since UMHS has not been approved to participate in the federal student aid programs, any existing student loans will not be eligible for in-school deferment. UMHS also does not automatically report enrollment to lenders.

In-school deferment forms require a federal school code. UMHS does not have a federal school code. If a deferment form is submitted to the Registrar, it will be completed, less the school code field, and submitted to your lender. However, approval is not guaranteed. You must monitor your accounts to ensure the outcome of your deferment request.

If the request is not approved, you can apply for a forbearance. Forbearance is another type of non-repayment status. However, you MUST make sure to make ALL required payments ON TIME, and IN FULL, until either a deferment or forbearance is approved. Failure to maintain all of your student loan accounts can result in an inability to qualify for the funding you need for your medical education.

Sallie Mae does not take lightly any delinquencies that may appear on your credit report for any student loans. Depending on the severity of the delinquency, you may not even qualify with a good cosigner. This will leave you with very limited funding options. Do not put yourself in this position.

## **FERPA Compliance**

In accordance with the Family Educational Rights of Privacy Act (FERPA), UMHS does not disclose personally identifiable information from any educational records to any person or agency, unless the student has given written and specific consent. This includes details of your financial aid: loan status and amounts, scholarship, or grant status and amounts, etc. If you wish to consent permission for the details of your financial aid to be discussed with someone other than yourself, you must complete the UMHS Information Disclosure Consent Form and return it to the Office of Financial Aid.

#### **University of Medicine and Health Sciences**

Office of Financial Aid 275 7th Ave., 26th Floor New York, NY 10001

Tel: 212-868-0855 or 866-686-0380

Email: finaid@umhs-sk.net

Monday—Friday: 7:30am—5:00pm Eastern Standard Time Saturday, Sunday: Closed

# UMHS Administrative and Satellite Admissions Offices

The UMHS Administration and Satellite Admissions Offices are strategically located in several regions of the U.S. as resources for prospective students, current students, and alumni.

These offices play a vital role in helping prospective students and their families navigate the complicated medical school selection process. All of our satellite offices provide regional residents the same type of personalized experience they would receive walking through the doors at our New York administrative office.

For general admissions inquiries or details about your next steps, you can call 866-686-0380 or email admissions@umhs-sk.net.

If you'd like to visit one of our offices for an in-person appointment with an admissions staff member, call one of the numbers below. Of course, walk-ins are always welcome.

#### North American Administrative Office

275 7th Ave., 26th Floor New York, NY 10001 Toll Free: (866) 686-0380 Direct: (212) 868-0855

MARIE McGILLYCUDDY Vice President of Admissions mmcgillycuddy@umhs-sk.net

SHYAM DHARIA, B.S. Associate Director of Admissions, Northeast sdharia@umhs-sk.net

#### Midwest/Canada Regional Office

5777 Maple Road, Suite 145 West Bloomfield, MI 48322 Toll Free: (877) 363-8558 Direct: (248) 363-8558

MICHELLE PERES

VP of Enrollment Management
mperes@umhs-sk.net

CAROLE WALKER
Regional Director of Admissions
cwalker@umhs-sk.net

#### Southeast Regional Office

224 Datura Street, Suite 1115 West Palm Beach, FL 33401 Toll Free: (877) 547-1520 Direct: (561) 820-8771

MELANIE WEINER
Associate Director of Admissions
meweiner@umhs-sk.net

EARL MAINER
Senior Associate Director of Admissions
for US and Puerto Rico
emainer@umhs-sk.net

#### St. Kitts Campus

P.O. Box 1218 Basseterre, St. Kitts Toll Free: (869) 466-2043 Direct: (869) 466-1057

## **Disclaimers**

This publication has been authorized and approved by the Board of Trustees, President, and Dean of the University of Medicine and Health Sciences. In this publication are descriptions of the UMHS educational program and facilities.

All content in the UMHS catalog is subject to change at any time. This includes, but is not limited to, tuition and fees, admissions, curriculum, clinical rotation locations, and requirements to graduate. Any changes are applicable from the time of the change to prospective and enrolled students. Date of catalog issue: May 2022.

The University of Medicine and Health Sciences reserves the right to modify or change the curriculum, tuition, or fees of any sort without prior notice. UMHS also reserves the right to modify or change examination and semester schedules without prior notice. Each student is responsible for complying with the degree requirements in effect at the time of their enrollment and attendance.

The University of Medicine and Health Sciences admits students without regard to race, color, national origin, gender, religion, disability, or age, to all rights, privileges, programs, and

activities generally made available to students at the University. It does not discriminate on the basis of race, color, national origin, gender, religion, disability, or age in administration of its educational programs and other University-administered policies.

\*UMHS is continually adding to its faculty. Please refer to our website at www.umhs.org for a complete faculty listing.



North American Administrative Office 275 7th Ave., 26th Floor New York, NY 10001

## Questions

U.S./Canada: 866.686.0380 admissions@umhs-sk.net





