Ben-Gurion University of the Negev
Medical School for International Health
in collaboration with Columbia University Medical Center

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3. ABOUT THE SCHOOL

Ben-Gurion University's Medical School for International Health (MSIH) in collaboration with Columbia University Medical Center follows a four-year medical degree program designed to promote special skills in primary care, cross-cultural, community, and preventive medicine. Goals are set jointly and curriculum is developed and approved by both institutions. In addition to building a US-style curriculum, a required Global Health and Medicine (GHM) track was launched. The curriculum is unique in its emphasis on cross-cultural primary health care and graduates of the MSIH are equipped to treat and to promote health and prevent diseases in diverse populations.

4. REQUIREMENTS FOR ADMISSION

All applicants must complete a four-year undergraduate degree from an accredited institution. MCAT scores must be submitted for the preceding four years. Students may submit equivalent alternatives of graduate degrees from countries where the MCAT is not offered. Selection to the program is based on the student's potential for the successful completion of the program as indicated by undergraduate GPA, MCAT scores, extra-curricular experience, recommendations, and interview assessments. Individuals with degrees from universities where the language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) taken within one year of the application date. Applicants who wish to transfer from other medical schools will be reviewed individually and may be required to take additional course work before being admitted as second or third year students.

Students who have completed a Masters degree in Public Health (M.P.H.) are encouraged to apply. Applications are also accepted from students who have completed a degree in a non-science major if they have also completed the necessary pre-requisites for the study of medicine. The pre-requisites include one year each of physics and biology, and two years of chemistry, one of which must have been organic chemistry lectures and laboratory. Other optional recommendations include genetics and developmental biology. Students who lack the required pre-medical courses may consider applying to Columbia University's Post-baccalaureate Premedical Program.

Admission is open to exceptional individuals of all nationalities who seek to prepare themselves for careers in global health and population-based medicine. Those who have had more than half of their school education in Israel or have graduated from an Israeli high school must apply to the Israeli program of the Joyce and Irving Goldman medical school at Ben-Gurion University.

Medical School for International Health

5. FOUR YEAR CURRICULUM

The language of instruction is English. The four-year M.D. program includes two years of basic sciences and two years of clinical clerkships and electives. The study of Global Health and Medicine (GHM) is integrated into the first two years of conventional medical courses while in third and fourth years, the emphasis is on unique GHM clerkships.

Evaluation System
Students are graded on an Honors/Pass/Fail system based on oral and written examinations and on observations of student performance. Objective Structured Clinical Examinations (OSCE) are used in some courses.

6. ACADEMIC TIMETABLE

First Year, Class of 2016

July 22 to August 24, 2012	Orientation/Summer Course
July 29, 2012	Tisha B'Av, no classes
August 28, 2012	First day of first year
September 16 to September 18, 2012	Rosh Hashanah, no classes
September 25 to September 26, 2012	Yom Kippur, no classes
September 30 to October 8, 2012	Succoth, no classes
December 21, 2012 to January 3, 2013	Winter vacation
Feb 24, 2013	Purim, no classes
March 24 to April 1, 2013	Passover, no classes
April 15 to April 16, 2013	Memorial & Independence Days
May 14 to May 15, 2013	Shavuot, no classes
June 27, 2013	Last day of first year

Second Year, Class of 2015

August 20, 2012	First day of second year
September 16 to September 18, 2012	Rosh Hashanah, no classes
September 25 to September 26, 2012	Yom Kippur, no classes
September 30 to October 8, 2012	Succoth, no classes
December 21, 2012 to January 3, 2013	Winter vacation
Feb 24, 2013	Purim, no classes
March 24 to April 1, 2013	Passover, no classes
April 15 to April 16, 2013	Memorial & Independence Days
May 14 to May 15, 2013	Shavuot, no classes
June 13, 2013	Last day of second year

Third Year, Class of 2014

August 13, 2012	First day of third year
September 16 to September 18, 2012	Rosh Hashanah, no classes
September 25 to September 26, 2012	Yom Kippur, no classes
September 30 to October 8, 2012	Succoth, no classes
December 25, 2012	Christmas, no classes
January 1, 2013	New Year, no classes
Feb 24, 2013	Purim, no classes
March 24 to April 1, 2013	Passover, no classes
April 15 to April 16, 2013	Memorial & Independence Days
May 14 to May 15, 2013	Shavuot, no classes
June 24, 2013	Last day of third year

Fourth Year, Class of 2013

July 1, 2013	First day of fourth year - Exams (USMLE, CSA), elective and/or subinternship in U.S. Electives/sub-I (16 weeks)
December to January 2013	Interviews
January 3, 2013	**ALL STUDENTS MUST BE IN ISRAEL**
January 6 - 10, 2013	IHM Clerkship Workshop (required)
January 13 – March 7, 2013	IHM Clerkship
Feb 24, 2013	Purim, no classes
March 10 – May 16, 2013	**Selectives**
March 16 – 21, 2013	**Match week and SOAP application**
March 24 to April 1, 2013	Passover, no classes
April 15 to April 16, 2013	Memorial & Independence Days
May 14 to May 15, 2013	Shavuot, no classes
May 23, 2013	**GRADUATION**

*dates accurate at time of publication.

7. THE CURRICULUM – An Overview from the Associate Director for Academic Affairs- Prof. Alan Jotkowitz

First year begins with a one-month summer orientation period. While acclimating to your new surroundings, you will receive intensive introductions to the Hebrew language, Emergency Medicine and Introduction to International Health and Medicine (IHM). This will be followed by a full year of basic science courses. Some of these are carried out in an integrated, case-oriented fashion, while others are more traditional. An important component of the first year is the "Clinical and Global Medicine" course, during which the student acquires basic skills in communication and is exposed to various aspects of the community.

In the last few weeks of the first year, and throughout the whole of the second year, we will continue to deal with the basic sciences, but the focus and style change. The year is divided into blocks, each of which deals with a different region of the body and its related organ systems. Every block begins with an intensive study of the anatomy of that region, followed by 2-4 weeks devoted to each of the organ systems. In each system, the

basic sciences are integrated with pathophysiology to provide a comprehensive overview of that system. Hebrew and IHM are integrated within these courses.

The third year begins with an introductory course to Clinical Medicine and is followed by seven blocks of clinical clerkships, during which the student rotates through the various clinical departments. Most of these will take place in one of the hospitals affiliated with our faculty: the Soroka University Medical Center in Beer Sheva, the Barzilai Medical Center in Ashkelon, Ma'ayanei Hayeshua in Bnei Brak, HaEmek Hospital in Afula, Yoseftal Medical Center in Eilat, and the Psychiatric Hospital in Be'er Sheva. However, with the increase in student numbers, clerkships may be performed in other hospitals around the country. Advanced life-support, trauma and cross-cultural workshops are integrated within these clerkships.

The first half of the fourth year is devoted to electives (which can be taken in any approved academic medical institution around the world. An exciting component of the fourth year is a compulsory two month clerkship in international and cross-cultural medicine. Finally, all students return to Israel for 2 months of selectives in surgical and medical sub-specialties, and then … THE GRADUATION CEREMONY.

Integration of GHM into the curriculum
Associate Director for Global Health: Dr. Tzvi Dwolatzky

At the heart of the academic and clinical program of our school is an integrated approach to Global Health and Cross-cultural Medicine. At the outset of your studies in the first year, students are given a comprehensive and exciting introductory course aimed at providing you with the core competencies in Global Health. As well, courses in Epidemiology and Anthropology emphasize demographic and cultural issues relevant to Global Health. A course in Biostatistics provides students with the skills to write a high-quality research paper on topics relevant to Global Health issues. Students also participate in specific Global Health Modules in both their first and second years of study.

During the second year of studies, while learning the body systems, students present relevant topics relating to conditions found in developing countries. In the third year clinical clerkships, interactive workshops are held that develop skills in practicing clinical medicine in less-developed areas of the world. Workshops are also offered in cross-cultural aspects of medical practice. The fourth year serves as the pinnacle of students' global health experience, where they participate in an exciting practical eight-week clinical elective at sites relevant to international health in Israel, the US, Canada, and the developing world.

This integrated approach has enabled our graduates to acquire a clear understanding of Global Health. In fact, many of our graduates have acquired important positions and key roles in organizations providing health care throughout the world.

FIRST YEAR

Coordinator: Dr. Lone Avnon

The first year is divided into trimesters:

1. The summer course during the month of August.
2. Two trimesters of basic science studies.
3. Final trimester including two systems – Hematology and Endocrinology.

During the summer course, two subjects start that continue throughout the first year; Hebrew Language and Introduction to International Health and Medicine and Anthropology. An intensive and practical course in Emergency Medicine, culminating with an exam, is given during the second half of the summer course. The student will be offered lectures in Medical Ethics to enable the class to develop the honor code and to prepare you for the Physician's Oath Ceremony in October. The summer course also provides sessions which will enable a smoother transition to the Be'er Sheva experience such as a medical library tour, health insurance information, some history of Israel and a meeting with our student counselor.

After having settled in to your new accommodation and completed the Summer Courses, the first trimester begins in August with Clinical and Global Medicine, Hebrew, Microbiology and Biochemistry, Genetics, Molecular and Cell Biology, Epidemiology, Biostatistics, Immunology and Histology. Second trimester includes Pharmacology, Physiology and Pathology, as well as some first trimester subjects that continue. These courses in the basic sciences prepare students for the systems that start towards the end of the first academic year.

Included in the first year is a week-long course in preventive cardiology that is conducted together with the Israeli medical students. The year ends with an introduction to your first two systems, Hematology and Endocrinology. Make-up examinations are taken at the end of the third trimester, which may delay your summer vacation. Students will not proceed to second year before successfully sitting and passing first year make-up exams.

Over the first two years, in addition to studying International Health and Medicine (IHM), students are required to take four IHM modules. Modules are offered once every two years or according to arrangements by visiting professors. Sign up early!

Summer Course – Four Weeks

Course Number	Name of Course	Course Coordinator
481-8-1010	Emergency Medicine	Moran Corem
481-8-1070	Introduction to Global Health and Medicine (GHM)	Dr. Shay Pintov
481-8-1062	Hebrew Language	Ms. Irit Matmor

Trimester 1

Course Number	Name of Course	Course Coordinator
481-8-1011	Microbiology	Dr. Leslie Lobel
481-8-1040	Biochemistry	Prof. Nava Bashan
481-8-1038	Human Genetics	Dr. Ohad Birk
481-8-1020	Biostatistics	Dr. Dahlia Weitzman
481-8-1018	Histology	Dr. Michal Herschfinkel
481-8-1019	Immunology	Dr. Eli Lewis
481-8-1070	Introduction to Global Health and	Dr. Shay Pintov

	Medicine (GHM)	
481-8-1062	Hebrew Language	Ms. Irit Matmor
481-8-1016	Clinical & Global Medicine	Dr. Amit Dotan
481-8-1042	Molecular Biology	Dr. Clay Davis
481-8-1042	Cell Biology	Prof. Jacob Gopas

Trimester 2

Course Number	**Name of Course**	**Course Coordinator**
481-8-1090	Epidemiology	Dr. Dahlia Weitzman
481-8-1006	Physiology	Dr. Amir Mor
481-8-1012	Microbiology	Dr. Leslie Lobel
481-8-1017	Clinical & Global Medicine	Dr. Amit Dotan
481-8-1022	Pharmacology	Dr. David Stepensky
481-8-1024	Pathology	Dr. Gabriel Amitai
481-8-1071	Introduction to Global Health and Medicine	Dr. Tzvi Dwolatzky
481-8-1052	Hebrew Language	Ms. Irit Matmor

Trimester 3

Course Number	**Name of Course**	**Course Coordinator**
481-8-1005	Endocrinology	Dr. Jonathan Arbelle
481-8-1023	Hematology System	Prof. Aaron Tomer
481-8-1025	Preventive Cardiology	Dr. Sergio Kobal

SECOND YEAR

Coordinator: Dr. Lisa Saidel Odes

The second academic year commences late August and finishes in mid June to allow students ample time to prepare and sit the USMLE Step I. Students study the body systems and continue the modules of IHM that were introduced in the first year. Students must have completed four IHM modules by the end of the second year in order to pass and progress to the third year.

Course Number	**Name of System**	**Coordinator**
481-8 2072; 2073; 2074	Clinical Communication Skills	Dr. Amir Mor
481-8-2021	Cardiovascular System	Dr. Jean Marc Weinstein
481-8-2022	Respiratory System	Dr. Micha Aviram
481-8-2026	Gastrointestinal System	Dr. Leslie Eidelman
481-8-2028	Neuroanatomy	Dr. Moni Benifla
481-8-2062, 63, 67	Human Anatomy – Abdomen & Pelvis, Chest and Thorax, Limbs	Prof. Ze'ev Silverman
481-8-2064	Human Anatomy – Head and Neck	Dr. Daniel Fishman

*481-8-2023; 2024	Integration of Basic Sciences	Dr. Alan Jotkowitz
481-8-2027	Nephrology System	Prof. Yoram Yagil
481-8-2030	Rheumatology System	Prof. Mahmoud Abu Shakra
481-8-2079	Reproductive System	Prof. Eyal Sheiner
481-8-2095	Psychiatry System	Dr. Ari Lauden
481-8-2098	Neurology System	Dr. Gal Ifergane
*481-8-2019	The Healer's Art	Dr. Mike Matar Dr. Tzvi Dwolatsky
*481-8-2015	Literature and Medicine	Prof. Richard Sobel

* Elective course

*GHM Modules 2010-11– First and Second Year

Name of Course	**Course Coordinator**
Birth as a Human Right's Issue	Shayne Bergner
Health and the Environment	Dr. Shay Pintov
Health Inequities: Local and International Perspectives	Dr. Nadav Davidovich
International Child Health	Dr. Boaz Porter
International Health Organizations	Dr. Esther Guluma
International Health Promotion	Dr. Diane Levin-Zamir
Neglected Tropical Diseases	Prof. Z. Bentwich
Travel Medicine	Dr. I. Fuchs/Dr. R. Satran
Medical Humanism through the Arts	Dr. M. Nellis
Health Systems Around the World	Dr. A. Cicurel
Urban Health for the Poor and Underserved	Dr. Marie Therese Feuerstein

* Modules subject to change in 2011-12.

THIRD YEAR

Coordinator: Dr. Amir Ganiel

Students enter the clinical year comprising seven rotating clerkships conducted in various affiliated locations. Clerkships include Internal Medicine, Pediatrics, Surgery, Obstetrics & Gynecology, Family Medicine, Neurology and Psychiatry. The commitment to GHM is demonstrated in the course on Cross-Cultural Medicine that takes the form of a two-day workshop.

Most of the clerkships are structured in the following way:
Students are divided into small groups per clinical ward. A tutor is assigned to each group and is available to the students for help and support during the length of the clerkship. The schedule begins with the drawing of blood, morning report/related activities, morning rounds and seminars. The student is required to perform night calls, prepare patient presentations and to attend related lectures and activities organized by the department.

As is the case in many medical schools around the world and North America in particular, MSIH uses various teaching hospitals for clinical clerkships. While many clerkships will be conducted at Soroka University Medical Center in Beersheba, in some cases students will be required to attend a hospital outside the city. Every effort is made to accommodate student requirements, but you must be aware that occasionally you will not be able to do clerkships at your first-choice location. The final decision about clerkship locations will be at the discretion of MSIH administration.

Evaluation of the clerkships is comprised of departmental assessment of the students' practical performance during the rotation and a written or oral examination. The written examination will take the form of a National Board of Medical Examiners (NBME) Shelf Test. For some clerkships students will also be required to take an Objective Structured Clinical Examination (OSCE). It is the prerogative of each course coordinator to decide the composition of testing to be used for evaluation.

Course Number	Name of Clerkship	Coordinator	# Weeks
481-8-3070	Introduction to Clinical Medicine (ICM)	Dr. Miri Zetsker	2
481-8-3010	Emergency Medicine	Dr. Uri Netz	1
481-8-3030	Cross Cultural Medicine	Dr. Agneta Golan	0.5
481-8-3071	Pediatrics	Dr. Orna Attias	7
481-8-3073	Internal Medicine	Dr. Alan Jotkowitz	9
481-8-3072	Family Medicine	Dr. Tamira Feinsilver	4
481-8-3074	Surgery	Dr. Nitza Heiman Newman	6
481-8-3078	Psychiatry	Dr. Michael Matar	4
481-8-3079	Obstetrics & Gynecology	Prof. Eyal Sheiner	6
481-8-3098	Neurology	Dr. Ronnie Milo	3

FOURTH YEAR

Coordinator: Dr. Alan Jotkowitz

During the fourth year, students are required to complete 16 weeks of electives, an eight week clerkship in International Health and Medicine, and eight weeks of medical and/or surgical sub-specialties. Out of the 16 weeks of electives, four weeks must be a sub-internship in General Medicine, General Pediatrics or General Surgery. Further sub-internships may be taken in other fields, including ICU in Medicine, Surgery or Pediatrics. However for the purpose of MSIH they will NOT fulfill the School requirements for graduation, even though they may appear on your transcript as a sub-internship. Students may apply to take these clinical elective courses at Columbia University's College of Physicians and Surgeons, affiliates, or at other institutions.

Fourth Year Electives

16 weeks of elective courses (including a sub-internship) must be taken in the first half of the year, any or all of which may be taken at Columbia University's Faculty of Health Sciences. Electives may also be completed elsewhere in the U.S. or in Israel. All electives must be approved by the Elective Coordinator (Prof. S. Glick) at BGU.

Electives at CU (includes main campus and affiliates – St. Luke's-Roosevelt and Harlem). An elective form, which is available online or at the MSIH office, must be filled out listing your choice of electives for each month. Your health insurance and immunization status must be indicated on the same form that is then submitted to and signed by the Elective Coordinator, who will send it to the NY office. Course directors for some fields are now requiring that students who are applying for electives submit a CV and/or letter of recommendation with a transcript and USMLE scores. In addition to Pediatric sub-internships, which have additional pre-requisites noted in the elective manual, the fields are Orthopedics, Neurosurgery, Emergency Medicine and other sub-internships. Completed applications must be submitted to the BGU office by March of the third year for electives held during the months of July, August and September. Please note that the application deadlines are earlier for non-US citizens - January of third year for July, August, and September electives and late May for October, November and December electives. Exact dates will be announced to the class well in advance.

* While every effort will be made to meet student requests for electives, spaces are limited and we cannot guarantee students that all of their requests can be met by CU.

Electives **not** at CU: All electives require the approval of the Elective Coordinator. If you are not taking any electives at CU/affiliates, you may apply directly to the school on your own. Two forms need to be filled out. One form for your elective place of choice and a second form called "extramural electives", both of which are available at the School office. These, (together with any other documents the school may require), must be submitted to the Electives Assistant, who then forwards the documents to NY. Be aware of the deadlines for application by different schools. Deadlines are earlier for non-US citizens.

The Clerkship in Global Health and Medicine

The Global Health (GH) Clerkship is an eight week clinical experience that takes place in a developing country during the fourth year from mid January to mid March. The goal of the GH Clerkship is to learn how to promote health and provide good medical care, with limited resources, in a developing country. In so far as is possible, MSIH students are integrated with the local medical students. All clerkships must be authorized by MSIH, officially supervised by local faculty, and adhere to the standards set by the MSIH. During the clerkship students will prepare reports presenting interesting clinical cases and emphasizing issues relating to GH.

** At the time of preparation of this handbook, due to a ruling of the American Dept. of Education there remain some technical issues relating to those students who receive US Federal Loans which limits their participation in clerkships at some international sites. However, we have solved most outstanding problems and our students may now take advantage of the following alternatives:

1. Independent Sites in North America (US/Canada)

This option is open to **all** students. The student is responsible for finding a suitable site, which must be approved as appropriate and relevant to GH by the MSIH faculty. For interested students, our faculty can provide details of potential sites according to student experiences in previous years. Students may apply for approval at sites either alone or with a partner/group.

2. Sites in Israel (coordinated by MSIH)

This option is open to **all** students with many interesting sites with GH orientation available in Israel.

3. MSIH International Sites

- India (3 sites) – open to **all** students.
- Ethiopia, Uganda, Sri Lanka – for now open only to students **without** US federal loans (although this may change in the future)

4. Independent International Sites

- Eligible to **all** students
- **Excludes** formal MSIH sites, i.e. Ethiopia, Uganda, Sri Lanka (although students may make their own arrangements within these countries but not in MSIH programs)
- The site must be approved as appropriate and relevant to GH by MSIH faculty
- Finding the site and coordination with local faculty is the student's responsibility.
- Students may apply for approval at sites either alone or with a partner/group although the school prefers that students chose the latter option.

Selectives in Israel

The fourth year concludes with four blocks of selectives. Each selective block runs for about two weeks (9 to 10 work days) with some variability based on the timing of Passover and other holidays. Some of the selectives are medical subspecialties while others are surgical subspecialties. There is no requirement for a certain number of medical or surgical selectives, however it is suggested that students consider diversification. In some US states, it is possible that more clinical weeks of surgery are required in order to be licensed and enter residency. Students considering residencies in such States may wish to consider a majority of surgical selectives. Overall each student will participate in four selectives, one for each time block. Students will be asked to submit a rank list of their choices for each time block to the BGU office. In most cases, the list is NOT amenable to changes.

***Please note**: It is a BGU/MSIH requirement (and a requirement of the Israel Council for Higher Education) for all students to be in Israel during the final two months of their required academic activities. Please note that the selectives are considered a*

REQUIRED academic activity by MSIH. Absence from selectives may result in the student not being eligible to receive their degree on time.

Fourth Year Schedule

Course #	Name of Course	Coordinator	# Weeks
481-8-4001	Elective 1	Prof. Shimon Glick	4
481-8-4002	Elective 2	Prof. Shimon Glick	4
481-8-4003	Elective 3	Prof. Shimon Glick	4
481-8-4004	Sub-internship	Prof. Shimon Glick	4
481-8-4005	IHM Clerkship	Dr. Tzvi Dwolatzky	8
481-8-4006	Selective 1	Dr. Alan Jotkowitz	2
481-8-4007	Selective 2	Dr. Alan Jotkowitz	2
481-8-4108	Selective 3	Dr. Alan Jotkowitz	2
481-8-4109	Selective 4	Dr. Alan Jotkowitz	2

7. COURSE DESCRIPTIONS

FIRST YEAR

Physiology
Course Coordinator: Dr. Amir Mor
Course Number: 481-8-1006

The Basic Physiology course will focus on three levels; molecular, sub-cellular and cellular. The goal is to understand the relationship between structure and function and to create a basis for understanding the activity of tissue and organs. Comprehension of this fundamental physiology at the cellular level will be the basis for the study of physiology systems.
The main topics included in the course are:
1. Membrane properties and transport
2. Membrane excitability
3. Synapses

Evaluation: US-style Multiple Choice Test

Microbiology
Course Coordinator: Dr. Leslie Lobel
Course Number: 481-8-1011; 481-8-1012

Microbiology is an integrative course, reflecting the complexity of microbiology today. Its main goal is to furnish the student with sufficient background knowledge for understanding the origin of infectious diseases, the biology of disease-causing organisms, identification methods, and approaches to the microbial chemotherapy. The course includes topics from several disciplines such as bacteriology, virology, parasitology and mycology.
Teaching methods utilize frontal lectures and practical laboratories where students acquire basic knowledge on the methods currently used for the identification and characterization of the main human pathogens.
In keeping with the international nature of MSIH, special emphasis will be placed on parasitology and diseases in the developing world.

The course is divided into 3 parts:
Part 1 – Bacteriology including basic structure and genetics of bacteria, parasites, bacterial pathogens and their clinical presentation, antibiotics and methods of drug resistance.
Part 2 – Virology including viral replication mechanisms, viral pathogens and their clinical presentation, antivirals and vaccines.
Part 3 – Parasitology and mycology including basic biology of their life cycle, clinical presentation of specific pathogens and methods for treatment.

Evaluation: U.S.-style multiple quizzes
Shelf test
Case Presentation

Emergency Medicine
Course Coordinator: Moran Corem
Course Number: 481-8-1010

This Emergency Medicine course provides the student with the basic skills a physician needs in order to save lives in emergencies and in every day situations. The course will focus on basic skills and on the pre-hospital arena. Most of the studies will be conducted in small groups with a personal instructor.

Objectives:
1. Recognize situations requiring CPR and to provide Life Support at a high standard of care using both basic and intermediate life support skills to adults, children and infants.
2. Recognize and provide emergency care on the basic pre-hospital level to a variety of emergency situations.
3. Provide emergency care to trauma patients in the pre-hospital arena to a high standard of care, perform basic rescue techniques and provide pre-hospital trauma life support.

4. Basic Emergency medical skills including: Use of a semi-auto external defibrillator, insertion of I.V. lines, backboard extrications and immobilizations, bag-valve-mask devices, airway management and more.

Evaluation: Mandatory attendance in all activities
Written exam – multiple choice + OSCE (Objective Structured Clinical Exam)

Biochemistry
Course Coordinator: Prof. Nava Bashan
Course Number: 481-8-1040; 481-8-1041

The overall objective of the biochemistry course is to provide the student with a broad picture of the molecular and cellular basis of life. This includes the means by which living organisms transform energy and assemble molecules of great complexity to constitute the machinery of life.

The course is structured in the following way:

- Case presentations
- Lectures, self-learning, submission of written assignments
- Case discussions

Evaluation: U.S.-style multiple choice examination

Clinical and Global Medicine
Course Coordinator: Dr. Amit Dotan
Course Number: 481-8-1016; 481-8-1017

The aim of Clinical & Global Medicine is to introduce students to the clinical aspects of medicine over a variety of different settings and patient age groups. In general the course will provide the student with:

- An educational experience involving interaction between a caregiver and patient, not requiring knowledge of clinical medicine.
- Basic skills in conducting a medical interview.
- Skills in the different forms of doctor-patient communication in various situations and traditional settings.
- Understanding of various impacts of acute and chronic diseases on the patient and his surroundings.

Evaluation: Objective Structured Clinical Examination (OSCE)

Human Genetics
Course Coordinator: Dr. Ohad Birk
Course Number: 481-8-1038

This is a basic course in human genetics, combining cytogenetics and molecular genetics, with emphasis on relevance to clinical human genetics, genetic testing and counseling. The first lectures deal with basic cytogenetics, mitosis and meiosis, moving on to pathologies of chromosome number and structure, and the relevant clinical syndromes. Mendelian inheritance is discussed, as well as non-Mendelian genetics (genomic imprinting, multifactorial diseases, expansion repeats and anticipation, etc.), linkage analysis, population genetics and risk assessment. The final part of the course deals with pharmacogenomics and personalized medicine, a short overview of cancer genetics, and then genetic screening tests, screening tests in pregnancy, and clinical dysmorphology.

Evaluation: US-style Multiple Choice Test

Histology

Course Coordinator: Dr. Michal Herschfinkel
Course Number: 481-8-1018

The goals of the Histology course are to:

- Provide the students with the basic skills necessary to identify and understand the properties of human tissues including their organization, function and microscopic appearance.
- Present the basic histological techniques used to prepare and study the microscopic structure (substructure) of cells, tissues and organs.
- Lay the basic foundation of knowledge for understanding the histology of organs and systems as will be studied in the second year.

General teaching methods use frontal lectures, laboratories and supplementary self-study.

Evaluation: U.S.-style Multiple Choice Test
Practical exam

Immunology
Course Coordinator: Dr. Eli Lewis
Course Number: 481-8-1019

The structure of the Immunology course has four components that include:

- Humoral Immunology: history, antigens, antibodies – structure and function, generation of diversity (Ab and TCR), measurements of Ag and Ab and complement.
- Cellular Immunology: lymphatic organs, Major Histocompatibility Complex, differentiation of the T and B lineages, Ag presentation and recognition by lymphocytes, T-B interaction, tolerance, allergy and hypersensitivity.

- Integrative overview: host defense against infection, the cytokine network in inflammatory responses, transplantation.
- Clinical exercises: patient-oriented problem solving (POPS) in the presence of a clinical advisor.

Evaluation: U.S.-style Multiple Choice Test

Introduction t

Course Coordinator: Dr. David Stepensky
Course Number: 481-8-1022

The course, taught in the second semester of the 1st year, introduces the fundamental mechanisms and principles of drug action, including the parameters that affect and determine the optimal use of drugs in a specific patient/population. These are intended to serve as a sound basis for the future long lasting involvement of the students with clinical pharmacology.
The emphasized topics of this course are:
Pharmacokinetics – The absorption, distribution, metabolism and excretion of drugs, including factors such as genetic variability or disease states that may strongly affect the pharmacokinetics.

Pharmacodynamics - Scientifically based mechanisms of drug action. These are taught as interactions of an active compound with human physiological/pathological systems that lead to the expected pharmacological effects.

Specific detailed examples of common and/or important mechanisms of drug action will focus on pharmacological interventions in the activity of the nervous system (autonomic and central), autacoids, and chemotherapy as a tool against disease causing non-human and abnormal human cells. The development and regulations of new drugs and the basic principles of toxicology are also taught in this course.

The course is composed of frontal lectures and tutorial assistance. Two quizzes, each concluding a section, are held during the course.

Evaluation: U.S.-style Multiple Choice Test

Hematology System
Course Coordinator: Prof. Aaron Tomer
Course Number: 481-8-1023

The Hematology course aims to reflect the advances made in biology and medicine in recent years. Some of these include the actual isolation of the multi-potential stem cell and the discovery of new growth factors regulating cell proliferation and differentiation.

The course consists of 63 hours of lectures (including case and group discussions prepared by students) and three laboratories of four hours each. A CD is provided for self-study covering topics such as blood and marrow cell morphology.
Objectives of the course are to provide the student with an understanding of:

- Biology of Hematopoiesis
- Physiology of WBC, RBC, Platelets
- Pathology of Hematopoiesis
- Hemostasis
- Transfusion medicine
- An IHM emphasis on diseases prevalent in other areas of the world.

Evaluation: U.S.-style Multiple Choice Test

Introduction to Pathology
Course Coordinator: Dr. Gabriel Amitai
Course Number: 481-8-1024

The objective of the Pathology course is to give you the basic tools with which to expand your knowledge of medicine and to learn to think about disease in terms of basic science facts and clinical medicine interpretations. Most important is to provide you with knowledge to understand the frailties and suffering of the patients behind the symptoms and signs and the functional and morphological deficits of disease.

Course material is presented in lectures, laboratory exercises and handouts. The student will be advised about required and optional reading assignments from textbooks and medical literature.

Ten teaching subjects are complemented by a series of laboratory sessions that cover the following areas: Introduction to Pathology/Laboratory Methods; Cellular injury and cell death; The Inflammatory Response; Pathology of infectious diseases; Pathology of hemodynamic disorders; Genetic, fetal, perinatal pediatric disorders, pathology of infancy; Pathology of environmental and nutritional disease; Disorders of growth and differentiation and Neoplasia.

Evaluation: Practical examination
U.S.-style Multiple Choice Test

Molecular and Cell Biology
Course Coordinators: Prof. Jacob Gopas and Dr. Clay Davis
Course Numbers: 481-8-1042

Molecular and Cell Biology builds on the foundation established in the premedical program. A basic understanding of the nature of cellular processes at the molecular level is assumed. During the course we elaborate on the regulation of the cell machinery in the context of modern medicine.

At the cellular level, molecular trafficking across membranes (passive and active transport, Phagocytosis, pinocytosis and receptor mediated endocytosis), targeting (endoplasmic reticulum and lysosomes, protein secretion and membrane targeting) and the involvement of the cytoskeletal componenents (microfilaments, microtubules and intermediate filaments) in these and other cellular processes will be considered. We will

also explore the molecular bases of protein degradation (eg. ubiquitination), programmed cell death (apoptosis) and cancer progression (oncogenes and tumor suppressor genes).

At the molecular genetics level we will show how the basic elements of information processing in the cell have become key tools in disease diagnosis and therapy (polymorphism screening, expression analysis, gene therapy). We will show how aberrations in this processing are associated with disease (developmental genetics and genome instability in cancer) and how the current advances in the decoding the human genome hold out the prospect for better diagnosis and therapy (the human genome and haplotype projects).

Evaluation: US-style Multiple Choice Test

Preventive Cardiology
Course Coordinator:
Course Number: 481-8-1025

The course is an intensive 40-hour clinical week covering the etiology and pathophysiology of atherosclerosis. Students will pass through clinical rotations in Medicine, Neurology, Nephrology, ICCU, Vascular Surgery, Family Medicine and Pathology laboratory. Lectures will include such topics as smoking, nutrition, epidemiology and vascular surgery.

Evaluation: Poster and presentation
Attendance

Introduction to Global Health and Medicine (GHM)
Course Coordinator: Dr. Shay Pintov
Course Number: 481-8-1070; 481-8-1071

The course, Introduction to GHM, is your first exposure to the global health track at MSIH. This track distinguishes our school from other medical schools in the world, with the objective to increase awareness of the different aspects of global health and their complexities. GHM is becoming more relevant from year to year. In a world where communication, transportation, and information span borders and continents, most interactions are done globally. This change influences both developed and developing areas, but huge disparities still exist with regard to poverty, education, water, hunger, and disease, as well as health systems, services, policies and access. All these factors have implications on the health of the community and the individual.

GHM is a dynamic topic that changes significantly from year to year. It is a topic that goes beyond borders, cultures, and events. During the Introduction Course, the student will be exposed to the key issues that will provide the basis to understanding GHM.

Students will acquire a thorough knowledge and understanding of factors effecting health such as economy, education, policy, poverty, hunger, culture, geographical medicine, and

the environment, in addition to scientific measures used to evaluate the field and the impact on communities and individuals.

This year, the course will take a new and revised approach thanks to the cooperation of MSIH students and faculty who have worked together to reevaluate the objectives and content of GHM. The main subjects are as follows:

1. Global factors and organizations
2. Cross-cultural health and medicine
3. Global burden of disease
4. Geographic medicine
5. Vulnerable populations
6. Impact of global health on primary care

These subjects will be presented through an integrated approach combining self-learning and personal experiences of faculty from a variety of angles. This will enable the students to gain an understanding of the complexity of global health as a topic. In addition to this course, the students will broaden their knowledge through participation in GH modules that will be taught during the first and second year. Each meeting will combine one or more of the above main subjects, the personal experience of the lecturer, basic knowledge of the topic, and some PBL work. Students will be expected to come prepared to each class having read the recommended material prior to each session. All students will be required to present a GH topic from a list of subjects provided early in the course.

Evaluation: Compulsory attendance and active class participation
Presentation

Hebrew Language

Course Coordinator: Ms. Irit Matmor
Course Number: 481-8-1060; 481-8-1061; 481-8-1062

During the summer course, an intensive Hebrew Language Course is provided where students learn to read and write the alphabet, and introductory acquisition of the spoken language. Throughout the year, students are required to study four hours of Hebrew/ week. Groups are divided according to level, with the teaching emphasis on spoken language that is especially geared towards medical terminology.

Evaluation: Attendance/weekly homework/midterm assignment

Epidemiology
Course Coordinator: Dr. Dahlia Weitzman
Course Number: 481-8-1090

A 55-hour introductory course of the principles and methods used in clinical Epidemiological studies. Since Epidemiology is the basic science of Public Health, which is a basic component of International Health and Medicine (IMH), this course is given during the first semester of the first year as an essential introduction to IMH.

The course is composed of 25 hours of lectures and 30 hours of problem oriented exercises where the students work in small groups. The lectures cover the basic components of disease transmission, measures of morbidity such as incidence and prevalence and the various ways of measuring mortality, including survival analysis.

The principles of measuring the validity and reliability of diagnostic and screening tests are also taught. The second part of the course deals primarily with study design, starting with randomized clinical trials and observational studies such as cohort, case-control, cross sectional and ecological studies. The importance of evaluation studies is presented with regard to screening programs and health services research.

The eight problems that are studied during the lab exercises cover the course material and allow the students to cope with real life examples of topics such as: investigation of a food borne outbreak and adjustment of mortality rates.

Evaluation: Mid-term test
Final test – made up of U.S.-style multiple choice questions as well as open-ended questions
Homework assignments

Biostatistics
Course Coordinator: Dr. Dahlia Weitzman
Course Number: 481-8-1020

The introductory level Biostatistics course is designed to introduce students to the statistical methods that are most often used in medical literature. Students will learn the underlying theory and logic of Biostatistics, fundamental concepts, hypothesis testing, and when to use the various statistical tests. Students will acquire the skills to critically read medical literature and to perform basic data analysis.

Evaluation: Final exam
Homework assignments

Endocrine System
Course Coordinator: Dr. Jonathan Arbelle
Course Number: 481-8-1005

The Endocrine System is by any and all means the method by which the body communicates among its organs via messenger molecules. This course will cover the following topics:

The course will cover the following topics: Definition of endocrine system; hormonal action; the receptor; Endocrine glands; classification, heterogeneity, functions and regulation of hormones, evaluation of an endocrinological disease; the endocrine system in the different stages of the life cycle; diabetes and its different forms.

Evaluation: U.S.-style Multiple Choice Test

SECOND YEAR

Clinical Communication Skills
Course Coordinator: Dr. Amir Mor
Course Number: 481-8-2072; 481-8-2073

a. "The Clinical Interview in Hebrew". This theme is aimed at focusing the rudiments of Hebrew acquired in the first year Ulpan/Hebrew Language Courses towards "Clinical Hebrew", whilst exposing the student to the patient interview as a technique. The entire class is divided into small groups of two to four students, according to Hebrew language proficiency. Students begin by practicing on each other and their tutor *in vitro*, and progress to meet with real patients on the wards in a controlled and tutored *in vivo* practice setting.

i. The staff consists of BGU medical students in their penultimate or ultimate year of studies.
ii. The Hebrew studies span both semesters, with meetings twice a week in the afternoons.

Attendance is compulsory and the course is assessed by means of a practical exam in OSCE format. The grade is aimed at giving the students an estimate of their proficiency and demonstrating to them how far they have come in their language skills.

Requirements: Attendance– mandatory (at least 80% of all meetings).
Evaluation: Personal TA evaluation and final OSCE

Cardiovascular System
Course Coordinator: Dr. Jean Marc Weinstein
Course Number: 481-8-2021

The course is based on the fundamentals of physiology, histology, pathology and embryology, including frontal lectures, laboratory work and computer simulations and exercises. Building on fundamentals, each of the main areas of clinical cardiology are taught, including valve disease, pericardial and myocardial disease, congestive heart failure and ischemic heart disease (from a subcellular level to clinical syndromes and a view of international cardiology). The electrical system of the heart is discussed, also from a subcellular level to clinical arrhythmia and conduction defects, including lectures and exercises in ECG.

Other subjects include cardiovascular pharmacology, congenital heart disease, preventive aspects of cardiology, gender differences in cardiology and cardiovascular surgery. Students also have an opportunity to present topics they have researched to the class.

Evaluation: U.S.-style Multiple Choice Test

Human Embryology
Course Coordinator: Dr. Inna Gitelman
Course Number: 481-8-2020

The Human Embryology course is designed to teach medical students the embryonic development of the major organ systems and associated congenital abnormalities. The course is organized such that Embryology is studied in parallel with the relevant Human Anatomy material. The goal of this integrated approach is to help the students gain a better understanding of Anatomy. In addition to descriptive embryology, which teaches the dynamics of morphogenesis and organogenesis, the course introduces the underlying molecular mechanisms, *i.e.*, the genetic programs that regulate developmental processes. This helps the students understand both the origins of individual birth defects and of congenital syndromes with diverse and apparently unrelated phenotypes, such as Kartagener's or velocardiofacial syndromes. The topics covered and times devoted to each topic are listed below.

Evaluation: Included as part of Human Anatomy and related systems

Respiratory System
Course Coordinator: Dr. Micha Aviram
Course Number: 481-8-2022

1. Basic Science: Embryology; Histology. Lung Defense Mechanisms.
2. Basic Lung Physiology: Structure and function relationship, Ventilation, Perfusion, Gas Transport, Lung Mechanics (Static and Dynamics) lung volumes and ventilation, Ventilation Perfusion mismatch, Respiratory Muscles, Pulmonary Circulation, Cardio-Pulmonary Relationship, Control of breathing.
3. Advanced Lung Physiology: Air and Fluid in Pleural Space, Exercise Physiology, High altitude Physiology, Scuba Diving Physiology, Acid Base Physiology.
4. Respiratory Diseases
   Adult Pulmonology : Chronic Obstructive Pulmonary Disease (COPD); Interstitial Lung Disease (ILD), Asthma, Pneumonia; Tuberculosis, Pneumonia in Immuno-compromised Host, Bronchiectasis and Lung Abscess, Lung Tumors: clinical and pathological aspects,

Venous Thrombo-Embolism; Sarcoidosis, Acute Respiratory Distress Syndrome (ARDS) Sleep-Related Disorders.
Pediatric Pulmonology: Fetal adaptation to fetal life, Hyaline Membrane Disease , Bronchiolitis, Pneumonia, Cystic Fibrosis, Childhood Asthma, Sudden Infant Death Syndrome.

5. Pulmonary Function Tests (PFTs); Lung imaging.
6. Viruses in the Respiratory tract;
7. Mechanical ventilation.

Evaluation: U.S.-style Multiple Choice Test

Gastrointestinal System

Course Coordinator: Dr. Leslie Eidelman
Course Number: 481-8-2026

Gastroenterology is a system of Internal Medicine and has a close interface with surgery. It entails both empathetic individualized patient care and advanced technology using invasive procedures. It is multifaceted, involving inflammatory, infectious, neoplastic, auto-immune, metabolic and functional disorders and includes the Biliary System and the liver.

The course will include 10 one-hour sessions devoted to discussions of case studies that emphasize a clinical approach to Gastrointestinal (GI) problems. Lectures and laboratories cover subjects such as:
Physiology of the GI tract; GI diseases and cancer; maldigestion and malabsorption; diseases of the pancreas and liver; gender related aspects of GI disease; drugs and metabolism, acute gastroenteritis, oral rehydration; Immune deficiency and AIDS in relation to the GI tract

Students are also encouraged to come to the GI department to see endoscopy procedures.

Evaluation: U.S.-style Multiple Choice Test

Nephrology System

Course Coordinator: Prof. Yoram Yagil
Course Number: 481-8-2027

The course is presented as a series of lectures intertwined with case-based seminars and laboratories.

The first part of the course provides the physiological and pathophysiological background for dealing with renal disease. Topics include renal circulation, glomerular and tubule structure and function, electrolyte and water handling by the kidney, the renin-angiotensin-aldosterone system, electrolyte disturbances, hypovolemia and hypervolemia, hyperosmotic and hypoosmotic disorders and metabolic acidosis and alkalosis.

The second part provides an extensive coverage of the clinical spectrum of kidney disease and hypertension. Topics include renal pathology, immunology of renal disease treatment, nephritic syndrome, nephrotic syndrome, interstitital renal disease, cystic renal

disease, renal replacement therapy, kidney transplantation, primary and secondary hypertension hypertension, urinary tract infection and urinalysis**.**

Evaluation: U.S.-style Multiple Choice Test

Neuroanatomy
Course Coordinator: Dr. Moni Benifla
Course Number: 481-8-2028

Subjects covered include:
1. Topography of the brain; vasculature – scalp & meninges, brain anterior and posterior circulation, veins and sinuses; trauma – blockage of the Cerebral Aqueduct;
2. Spinal Cord – general description, descending & ascending tracts, cytoarchitecture of the gray matter, blood supply to the spinal cord, injuries to the spinal cord, clinical manifestations;
3. Medulla – anterior and posterior surfaces, traverse section at the level of olives, syndromes of the medulla;
4. Longitudinal tracks – cortico-spinal tract, lateral spino-thalamic tract, anterior spino-thalamic tract, posterior white columns;
5. Pons (Metencephalon) – general, surfaces; rostal pons, dorsal and ventral parts; caudal pons – dorsal and ventral parts; syndromes;
6. Midbrain – tectum, cerebral peduncle, substantia nigra, reticular formation, crus cerebri, inferior colliculi, tegmental and inter-peduncular nuclei, trochlear nerve.

Evaluation: Practical examination
U.S.-style Multiple Choice Test

Musculoskeletal System
Course Coordinator: Prof. Mahmoud Abu-Shakra
Course Number: 481-8-2030

The Rheumatology course is based on the fundamentals of histology, pathology, biochemistry and immunology, including frontal lectures, laboratory work and computer simulations.

Building on fundamentals, each of the main areas of clinical Rheumatology are taught including Seropositive (Rheumatoid Arthritis, systemic lupus erythematosus, systemic sclerosis, inflammatort myopathies and vasculitis), Seronegative (psoriatic arthritis, ankylosing spondilitis, and reactive arthritis), crystal-induced (gout, pseudogout), septic arthritis, degenerative arthritidies, fibromyalgia, nonarticular rheumatism and osteoporosis.

Other subjects included in the Rheumatology System are imaging of rheumatic diseases, nonsteroidal anti-inflammatory drugs, disease modifiying anti-rheumatic druds, biologic therapies, and corticosteroids.

Evaluation: U.S.-style Multiple Choice Test

Human Anatomy

Course Coordinator: Prof. Ze'ev Silverman
Course Numbers: 481-8-2062; 481-8-2063
481-8-2964; 481-8-2067

Human Anatomy is a systems-based course emphasizing medical-anatomical concepts and structural relationships in the body. Computer-assisted instruction and advanced imaging/cross-sectional anatomy are employed together with frontal lectures and cadaver dissection to facilitate understanding and retention in the highly truncated time frame allotted to the course.

The use of senior medical students as teaching assistants in the dissection laboratory, an innovation developed at BGU, provides another critical component to the course. These students bring their clinical experience and particularly their appreciation for anatomy as a key tool in the diagnosis and treatment of pathology to the dissection laboratory.

The course is divided into the following mini courses:

1. Chest
2. Abdomen & Pelvis
3. Head & Neck
4. Limbs

Evaluation: Four practical examinations
Four written examinations

Reproductive System

Course Coordinator: Prof. Eyal Sheiner
Course Number: 481-8-2079

The Reproductive System course is an introduction to the clinical area of Obstetrics and Gynecology and Reproductive Medicine. It will also help you get acquainted with the rotation in the third year.

The course includes lectures in the Basic Sciences of Obstetrics and Gynecology (physiology, microbiology etc.) as well as the clinical section. Three main areas will be covered: Obstetrics – adaptation to pregnancy, normal labor and delivery, fetal physiology; Gynecology – normal menstrual cycle, hormone biosynthesis, HIV infection during pregnancy and Fertility – male infertility, normal and abnormal sexual development.

Evaluation: U.S.-style Multiple Choice Test

Neuropsychiatry System
Neurology

Course Coordinator: Dr. Gal Ifergane
Course Numbers: 481-8-2098

The objectives of the Neurology part of the system are:

- Highlighting of selected aspects in neuroscience and molecular neurology.
- Theoretical basis for the clinical neurology clerkship; principles of localization and neurological diagnosis; pathophysiology of neurological dysfunction.
  Participating disciplines include clinical neurologists (adult and pediatric), neuroscientists, neuropathologists, pharmacologists and neurosurgeons.
  The length of the course is 82 hours of which 13 hours are spent on highlights of neuroscience such as motor and sensory systems, visual system, neurology of eye movements and pain and pharmacology. 10 hours are spent studying the pathophysiology of common neurological symptoms such as dizziness and headaches. A further 48 hours is concentrated on major disease categories (using a multidisciplinary approach) and a final seven hours is spent viewing "International Medicine" issues.

Evaluation: U.S.-style Multiple Choice Test

Psychiatry
Course Coordinator: Dr. Ari Lauden
Course Number: 481-8-2095

The psychiatry course is intertwined with the neurology course as part of the view that both fields share and sometimes overlap anatomically, etiologically or clinically.

The aim of the course is to equip the student with a broad information base for the clinical clerkship regarding clinical psychiatry and some knowledge in psychology and behavioral sciences.

The subject matter is presented in a form of frontal lectures and interdisciplinary seminars. Self-study is expected in a few cases.
Subjects covered include Classification and Diagnostic interview in psychiatry, Schizophrenia and psychotic disorders, Mood disorders, Anxiety disorders, Posttraumatic and adjustment disorders, Psychotherapeutic and pharmacologic treatments, Child adult and geriatric psychiatry, Culture sensitive, international psychiatry and Forensic psychiatry.

The preferred textbook is the current edition of "The Synopsis of Psychiatry", By Kaplan and Sadock.

Evaluation: U.S.-style Multiple Choice Test

The Healer's Art-"Awakening the Heart of Medicine"
Course Coordinator: Dr. Mike Matar
Coordinating Facilitator: Dr. Tzvi Dwolatzky
Course Number: 481-8-2019

The Healer's Art Elective Course is an extracurricular activity, which addresses issues not covered by standard curricular activities – i.e. each individual participant's fundamental, personal sense of meaning underlying their commitment to medicine as a

calling, as well as a profession. It was designed by Dr Rachel Naomi Remen at UCSF and has been adopted by over 50 US Medical Schools.

The course is experiential in nature and is based on the discovery model. It does not *teach* as such, or provide answers. Faculty and students meet on an equal basis to form a community of investigation, to share their personal experiences and insights non-judgmentally, on topics such as "Sharing Grief and Healing Loss" and "Allowing Awe in Medicine".

In addressing these highly personal and individual issues, the course seeks to enable participants to reinforce their own unique sense of commitment and meaning in dedicating their future to the service of others, and thus to better withstand the prevailing tendency to develop professional burnout and personal disillusionment.

Course facilitators are Dr. Asher Moser, Dr. Yoram Singer, Dr. Assi Cicurel and Dr. Marianne Nellis.

Literature and Medicine
Course coordinator: Prof. Richard Sobel
Course number: 481-8-2015

The aims of the course are two fold:

1. to enhance the use of imagination; there may be much to remember in this course but there will be nothing to memorize. The core of medical morality and the basis of empathy is a keen imagination.
2. to foster a healthy sense of skepticism and a powerful tolerance for uncertainty, ambiguity, and the complexity of interpretation and perception. The physician must distinguish between medical "certainty" and wisdom.

There are no frontal lectures. The four faculty members share a round table format with the participants: their task is to introduce the text at hand and to guide the discussion. In the first 3 sessions, poems and short stories are discussed, selected for their intrinsic literary value but with a serious nod to medical relevance as well, insofar as will be possible, to the issues of International health. The final session will consist of a consideration of creative writing by the students.

IHM Modules
Coordinator: Dr. Assi Cicural

Objectives of the modules:

- Thorough study of subjects related to international medicine.
- Creating a strong knowledge base and developing interpersonal skills that will accompany students in future medical decision-making.
- Small study groups allowing students active workshop based learning, encouragement to voice their opinions in open discussions, and enabling them to participate in the teaching process.

- To facilitate the development and practice of essential skills and competencies such as transforming self learning into written articles, publications, posters and public presentations whilst receiving guidance and constructive criticism.
- Studying with specialists who work in the field of international medicine, or any other relevant field in an intimate and informal environment.
- Provide support and an academic framework for mini courses given by prominent specialist while on a short visit to Israel.
- To help form bonds between students of different years at MSIH, and the Israeli medical school.

Evaluation: 80% mandatory attendance at classes, tours or any relevant visits
Completion of all curriculum assignments
Class participation in discussions, lectures, and fulfillment of obligations
Student assessment is according to standard procedures of MSIH and is noted in students' personal files.

For MSIH regulations regarding Modules please refer to p. 126-7, Guidelines for Students

Modules for the 2010-2011 Academic Year

Birth as a Human Rights Issue *taught by Shayne Bergner*

An overview of the midwifery model of care as opposed to the medical model of obstetric care. This course will include a new perspective of the cultural and psychological impact of childbirth, and the potential for birth to enhance and change our understanding of self and society as a whole. There will be a practical approach to applying theory to practice. This course is designed to stimulate dialog and apply new scientific studies to improve standards of care as well as outcomes. We will examine the profound responsibility of health care providers to challenge existing models of care, and advocate for change when necessary.

Health and the Environment *taught by Dr. Shay Pintov*

The course will deal with the relationship between health sustainability, the food chain, the life cycle, the climate change and the impact of various environmental factors on our health; the intergeneration transfer, research in the field, ethics, risk assessments and a triangle between government, science and NGO. It will also cover hazards which cause disease such as asthma, ischemic heart disease, infertility, stroke and cancer.

Health Inequities - Local and International Perspectives *taught by Dr. Nadav Davidovich*

This course aims to provide theoretical and application tools for medical students in order to develop interventions to reduce health inequities. Several frameworks regarding health inequities will be used for investigating and discussing the empirical evidence, outcome measurement issues, policy and policy formation concerns, and intervention practices.

International Child Health *taught by Dr. Boaz Porter*

The objective of this course is to understand the challenges for improving child health internationally. This will involve understanding the needs of the third world- the infectious diseases and nutritional problems that cause disease and mortality, as well as the social and family issues affecting child health in developed countries. Students will study the interaction of basic science, clinical medicine and the politics of health delivery in relation to child health.

International Health Organizations *taught by Dr. Esther Guluma*

The course will focus on understanding the global partnerships for health within which international health organisations operate and their linkages to development frameworks and to Health Millennium Development Goals (MDGs). It aims to strengthen the capacity of the students to analyse the reasons health policies are on the global agenda of various organisations, to increase their familiarity with funding mechanisms used by international health organisations (grants, SWAPs basket funding, PRSPs, etc.), and to increase their familiarity with policy determination mechanisms affecting public health (The High Level Forum on the Health MDGs, the Paris Declaration of Aid Effectiveness). The course will examine issues of coordination and harmonisation among international health organisations.

International Health Promotion *taught by Dr. Diane Levin-Zamir*

The learning objectives of this course are: (1) To understand the concept of health promotion and its contribution and application on an international level; (2) To understand the various aspects of health promotion in preventing disease, increasing early detection, and to promote self-care; (3) To understand the importance of empowerment and advocacy in promoting health on all levels: individual, family, community, mass media and national health policies; and (4) To understand the social determinants of health behavior and their importance in planning effective health promotion programs and policies.

Medical Humanism through the Arts *taught by Dr. Marianne Nellis*

The objective of this course is to draw upon the humanities (cinema, literature and art) in order to promote a greater understanding of the pain and suffering of patients and their families and the emotional impact of medical decisions.

Neglected Tropical Diseases *taught by Dr. Zvi Bentwich*

This module will focus on the Neglected Tropical Diseases (NTD) and their impact on health, quality of life and poverty. The characteristics and unique features of each of the diseases included will be presented and discussed. Since NTDs have strong influences on the native immune response, their impact as co-infections on the major epidemics of

AIDS, Tuberculosis and Malaria, and the importance of eradicating them, will be dealt with specifically.

Nutrition in Global Development *taught by Dr. Richard Deckelbaum*

A review of nutrition related issues globally, and in Israel, as well as in the West Bank and Gaza.

Travel Medicine *taught by Dr. Inbal Fuchs*

The student will understand the essentials of an up to-date pre-travel medical consultation in light of the growing increase in global travel. The module will expose students to the variety of travel-related illnesses and the available vaccinations and preventive measures tailored to specific destinations.

Urban Health for the Poor and Underserved *taught by Dr. Marie Therese Feuerstein*

After focusing on global urban poverty and social determinants of urban health, patterns of urban morbidity and mortality are examined, as well as examples of country initiatives which have positively influenced the health of the poor and underserved. The role of the health workforce is considered in relation to revitalized primary health care. Active student participation includes a themed group presentation. Some of the principles, approaches and practices introduced in this module are also of relevance to developed countries.

THIRD YEAR

Introduction to Clinical Medicine Clerkship
Course Coordinator: Dr. Miri Zetsker
Course Number: 481-8-2070

The aim of this course is to train the student to cope with the basic demands of clinical work. This will include taking patient histories, performing physical examinations and learning basic approaches to solving clinical problems. Following is a schedule of the daily program:

- Frontal lecture covering particular systems.
- Self-practice followed by supervised practice on patients in the ward. Emphasis is on history taking, physical examinations and problem-oriented records specific to each body system.
- Record taking and physical examination in the pediatric ward.
- General lectures on approaches to common symptoms such as fever, chest pain, weight loss.
- Oral and practical examinations.

Evaluation: Oral examination

Emergency Medicine
Course Coordinator: Dr. Uri Netz

Course Number: 481-8-3010

The third year course is divided into three parts:
Part 1 – three day course, includes an ACLS equivalent course with additional action stations in preparation for the Internal Medicine and Pediatric clerkships. An examination will be held at the end of the three days.
Part 2 – four three-hour sessions. This is part of the Internal Medicine clerkship focusing on advanced cardiac life support "mega code". This will be examined as one station in the Internal Medicine OSCE.
Part 3 – three days during the Surgery clerkship, two days of trauma lectures and one day of drills.

At the end of the course, you will have acquired the skills of airway management, basic and advanced intravenous access, inserting a chest tube, nasogastric tube, catheter to the bladder and more.

Evaluation: U.S.-style Multiple Choice Test

Cross-Cultural Workshop
Course Coordinators: Dr. Agneta Golan
Course Number: 481-8-3030

The aim of the Cross Cultural Medicine Workshop is to provide students with the skills and tools needed to deal effectively with cross cultural situations and diverse populations. The $1^{1/2}$-day workshop, conceived by MSIH students and coordinated by Dr .Agi Golan (Head of Neonatal Intensive Care Unit, Soroka University Medical Center), takes place mid-December during the third year.

The workshop focuses on three different components:

- Identification of personal biases and attitudes to other cultures.
- Understanding the perceptions of patients of their illness.
- Interaction with patients on medical care and promotion of health against the backdrop of different cultures.

The first part of the workshop identifies student biases and attitudes toward cross cultural issues. The second and third part is taught using the OSCE (Objective Structured Clinical Examination) method in small groups with a faculty member as a facilitator. Students interview simulated patients from diverse cultural background with varied problems and are requested to identify and manage underlying cultural challenges within the context of the medical interview. These sessions enable students to interview patients in a group setting and receive feedback from both peers and senior faculty members, who are trained as facilitators.

Each year a third year student coordinates the course, assisted by a second year student who will coordinate the course the following year and an observer from the first year class. In addition, students are involved in the writing of simulated patient cases.

Evaluation: Mandatory participation

Pediatric Clerkship
Course Coordinators: Dr. Orna Staretz Chacham
Course Number: 481-8-3071

The Pediatric clerkship is a seven-week rotation of which five weeks are spent on the general Pediatric ward, one week in a community Pediatric clinic, and a further week is assigned to the day hospitalization unit and the Neonatology department.

By the end of the rotation, students should be able to take a full history, including a family history, social history and physical examination, perform an accurate urinalysis and stool sample examination and interpret basic laboratory results. Written follow-ups are expected for each patient and students present their diagnoses and patient plans at daily seminars.

A session on imaging procedures allows students the opportunity to discuss their patients' X-rays and daily seminars are interspersed with specialty rounds. In addition, students will be on call in the Pediatric emergency room once a week.

A week of Neonatology is spent firstly in the postnatal ward where the student examines the healthy newborn infant and becomes familiar with the high-risk group of infants who need special attention. Using bedside teaching, case presentations and seminars we will discuss diagnoses and management of the diseases most commonly seen in the term and preterm infant.
Evaluation: Shelf test
OSCE
Clinical evaluation

Family Medicine Clerkship
Course Coordinator: Dr. Temira Feinsilver
Course Number: 481-8-3072

The Family Medicine Clerkship is a 4-week clinical rotation. After several Hospital rotations, students will find in Family Medicine their first ambulatory, community focused, primary care experience.

On the first day of this rotation, students will meet with the clerkship coordinator for an orientation session and an introductory seminar to Family Medicine. In addition to the "hands-on", clinical experience, small groups and seminar formats will be used during this clerkship to familiarize students with common clinical problems in primary care.

The most important part of this clerkship is that students will have the possibility to join a family physician and assist in caring for his/ her patients. Teaching is one-on-one and emphasizes the understanding of the doctor-patient relationship, and the importance of "patient centeredness". Problem solving will be discussed under the circumstances

confronted by primary care physicians in their daily work (poorly defined clinical conditions, early stage of diseases, and the need to make decisions under uncertainty). The bio-psycho-social model (biological, psychological and social components of the patient's problem) will be emphasized, and patient problems will be explored in the context of the family and the community.

Evaluation: Shelf test
Clinical evaluation

Internal Medicine
Course Coordinator: Dr. Alan Jotkowitz
Course Number: 481-8-3073

Our goal is to teach a clinical approach toward the patient while relating to as many subjects/diseases as possible. We try to teach how to integrate the various factors into a patient's profile, which includes: patient interview- history taking, physical examination, laboratory tests, x-rays etc. and to build an approach to diagnosis, a differential diagnosis, a treatment plan and a diagnosis plan for each patient.

Our main teaching method is clinical work; bedside teaching, patient admission but also discussions on specific important topics in Internal Medicine. The attending doctor is the primary teacher, but many other doctors are involved .The attending doctor is in charge of reviewing the admissions of his/her students on the ward and to be the intermediary between the students and the department.

Evaluation: Shelf test
OSCE
Clinical evaluation

Surgery Clerkship
Course Coordinator: Dr. Nitza Heiman Newman
Course Number: 481-8-3074

The purpose of this seven-week clerkship is to provide the student with the appropriate approach, a thorough knowledge and clinical skills in surgery. Included in this clerkship is one week of Ear Nose and Throat. Students are exposed to different teaching styles that range from formal frontal lectures given for basic topics, bed-side teaching rounds for more oriented problems and self-study units given to small interactive groups of students.

During this time, students will be exposed to the daily activities of surgical wards and operating rooms and will also acquire some essential knowledge in Ambulatory Surgery (outpatient clinics and morning ER "light" pathology), Proctology, Breast and Trauma Surgery in the form of rotations in the respective services and units.

An introduction to Pediatric and Plastic surgery in the form of lectures and seminars will be provided at the end of the clerkship.

Evaluation: Shelf test
Clinical evaluation

Psychiatry Clerkship
Course Coordinator: Dr. Michael Matar
Course Number: 481-8-3078

This clerkship represents the opportunity for students to experience as much as possible of what they have been taught in theory in the preclinical Neuro-Psychiatry System and to apply that knowledge to clinical situations with patients. Since the interview is so focal to Psychiatry, this is an opportunity to hone one's interviewing skills. The clerkship also raises and deals with certain social, ethical, moral and emotional issues ensuing from the encounter with the world of psychiatric disorders - a world a touch apart from many other fields in medicine, one that has suffered from social stigmatization and one that is often rather emotionally charged on a social and a personal level.

Design:

b. Small groups headed by a tutor are allocated to various wards and services in the three hospitals affiliated to the faculty (in Beersheva and Ashkelon). The day is divided into ward activities in the morning hours and class activities most afternoons. We aim to expose the student to as broad a variety of settings and patients as is feasible (ER, Psychiatric wards, Liason to general hospital wards).

c. The class activities are clinically oriented, presented by senior teaching staff proficient in English and include clinical discussions, work with standardized patients, role-playing and training in practical tools, such as Crisis Intervention.

d. In the evenings, students attend the ER's in pairs and/or join English-speaking physicians on duty on the wards. The days commence with a morning report by students on patients they have seen the day/night before; this method provides a convenient source for focal points for clinical discussions and a platform for improving ones style of case presentation/discussion, in preparation for the electives ahead.

e. The course is compact, demanding and rather intense. It aims to minimize passive learning and to maximize ward/clinic experiences and to focus on pro-active experiential learning on practical issues. **It therefore relies very heavily on pre-learning and self-learning by the students.**

f. The course culminates in an OSCE exam focusing, and a USMLE Step2-compatible shelf test. Both tests are quite demanding. The ward tutors assess the practical skills and clinical attitude/thinking of their students. Each component must be individually passed and the final grade is a composite of all these components (35%, 35% and 30%, respectively). Components on which the student has not attained a passing grade must be redone. Recurrent failure requires the course to be retaken at a later date. (For practical purposes, the OSCE cannot be retaken and the retake is in the form of an oral exam before two senior faculty members, involving an interview with a real patient and relevant discussion thereafter).

Evaluation: Shelf test
OSCE
Clinical evaluation

Obstetrics & Gynecology Clerkship
Course Coordinator: Prof. Eyal Sheiner
Course Number: 481-8-3079

The Obstetrics and Gynecology Clerkship is your first clinical clerkship and we hope you will gain both theoretical and practical knowledge as well as getting a first taste of what clinical work is all about. The clerkship begins with one week of introductory lectures followed by four weeks of "hands on" clinical work in the form of clinical case discussions and seminars that you will prepare. The introductory week aims to teach you the clinical and pathological aspects of ObGyn, and is naturally closely linked and based on the knowledge you acquired in the reproductive course in second year.

The clinical requirements include knowledge of how to conduct a gynecological and obstetric interview and physical, how to manage a normal birth, identification of normal pathologies of pregnancy and issues relating to infertility. Each student must manage a number of deliveries in order to complete all the requirements of the course.

Evaluation: Shelf test
OSCE
Clinical evaluation

Neurology Clerkship
Course Coordinator: Dr. Roni Milo
Course Number: 481-8-3098

The goal of the Neurology Clerkship is to make the students familiar with neurological conditions. Objectives of the course are:

- To acquire skills in neurological examination.
- To be exposed to different common neurological conditions.
- To understand the importance of the different imaging exams and electrophysiological tests in diagnosis.
- To be familiar with the therapy of common neurological diseases.

Evaluation: Shelf test
Clinical evaluation

FOURTH YEAR

Clerkship in Global Health and Medicine
During the months of mid January to mid March, students will participate in the GHM Clerkship. Subject to limitations set by the US Federal Authorities, IHM Clerkships may

take place in US/Canada, Israel, three sites in India, Ethiopia, Uganda, and Sri Lanka. Detailed rules and regulations will be supplied by the IHM committee who are the official supervisors for all IHM clerkships undertaken by students.

Surgical and Medical Selectives

Students rotate round eight weeks of surgical and medicine selectives held on a rolling basis in groups of up to eight students. Students are required to complete four selectives.

Fourth Year Selectives

Selective	**Course Number**	**Course Coordinator**
Plastic surgery	481-8-4016	Dr. A. Brazovsky
Neurosurgery	481-8-4018	Prof. A. Cohen
Gastrointestinal	481-8-4019	Dr. S. Delgado
Pediatric oncology	481-8-4023	Prof. Y. Kapelushnik
Pulmonology	481-8-4026	Dr. L. Avnon
Nephrology	481-8-4027	Prof. Y. Yagil
Oral and Maxillofacial Surgery	481-8-4028	Prof. O. Nachlieli
Urology	481-8-4029	Prof. Kaneti/Dr. Cytron
Palliative care	481-8-4033	Dr. Y. Singer
Pediatric surgery	481-8-4044	Dr. N. Heiman Newman
Vascular surgery	481-8-4045	Prof. G. Szendro
Hematology	481-8-4046	Dr. I. Levy
Oncology and Radiation Therapy	481-8-4083	Dr. D. Geffen
Ear Nose Throat	481-8-4090	Dr. Y. Slovik
Orthopedics	481-8-4091	Dr. E. Rath
Ophthalmology	481-8-4093	Dr. A. Kratz
Anesthesiology	481-8-4096	Prof. Y. Shapira
Radiology	481-8-4097	Dr. I. Shelef/Dr. D. London
Dermatology	481-8-4098	Dr. A. Cohen
Geriatrics	481-8-4099	Prof. M. Clarfield