**MEDICINE (M.D. PROGRAM)**

**Academic Recommendations for Admission**

Although the Wayne State University School of Medicine prefers that applicants for admission have earned a bachelor's degree, it will occasionally consider students of unusual academic attainment and maturity who have completed three years of college.

Required subjects for baccalaureate preparation are:

- general physics with laboratory, one year;
- inorganic and organic chemistry with laboratory, one year each;
- general biology or zoology with laboratory.

Additionally, starting with students admitted for the 2014-2015 academic year, it is strongly recommended that students take a course in statistics, ethics, and biochemistry. The student is urged to select additional subjects which will contribute substantially to a broad cultural background.

It is to be noted that when students are accepted before completion of their premedical requirements, they must maintain a satisfactory scholastic average in their continued premedical work to warrant enrollment in the School of Medicine.

The Medical College Admission Test is required of all applicants for admission into the first year class. Students seeking admission into the August freshman class should take this test no later than September of the previous year. After a preliminary review of application credentials, interviews are held with those applicants who warrant further consideration.

**Admission to the First-Year Class**

The School of Medicine adheres to the acceptance procedures of the Association of American Medical Colleges, including the `Early Decision Plan.` Admission procedures of the School are:

1. No place in the first-year class shall be offered to an applicant more than one year before the actual start of instruction for that class.
2. Following the receipt of an offer of a place in the first-year class, a student shall be allowed three weeks in which to make a written reply.
3. No student who has at any time been requested to withdraw for any reason from a medical school in which he/she has been registered will be accepted by the WSU School of Medicine. Students who have been dropped for poor scholarship by the School of Medicine should not expect favorable consideration for readmission.
4. Any applicant accepted by the School of Medicine who does not complete enrollment must apply for readmission and meet all requirements in force at the time of such new application.

**Admission with Advanced Standing**

Students from approved L.C.M.E. American medical schools may be admitted with advanced standing to the third year only, subject to the number of vacancies which may exist in the second and third years. Application for advanced standing should be made not later than July 15. The following requirements must be met:

1. An applicant must have matriculated as a student in an approved United States or Canadian medical school for a period of time equal to that spent by the class in which he/she seeks entrance and must have completed courses equivalent to those required of that class.
2. The applicant must file a completed application form and must present official transcripts from each school attended showing that he/she meets, in full, the entrance requirements for admission to this school.
3. The applicant must be a student in good standing at the medical school from which he/she is withdrawing. A letter of support from the dean of that school is required.
4. The applicant must take such examinations in the courses for which he/she seeks credit as may be required by the faculty of the School of Medicine, such as the USMLE Step 1 examination.

**Diversity and Integrated Student Services**

**Director:** DeAndrea Wiggins

This unit supports the medical school to maintain its representation of diversity across economic, personal and social dimensions. This is accomplished through pipeline outreach programs and special projects that present a combination of academic and extracurricular activities designed to inform high school, undergraduate and post-baccalaureate students about career opportunities in medicine and other health professions, and prepare them to gain admission.

A special program feature of the unit is the Post Baccalaureate Program. This medical school preparatory program offers an opportunity to a small number of applicants who are Michigan residents, and whose undergraduate academic achievement has been compromised by certain disadvantaging factors to gain admission into medical school. Successful completion of this special one year program facilitates entry into medical school for those selected applicants from disadvantaged backgrounds.

**Registration Requirements**

**Physical Examination**

Freshman medical students are sent a physical form with registration materials. Each student must present proof of a physical examination at or before registration for the freshman year. Students are also required to be annually tested for TB (skin test or chest x-ray).

**Health Insurance**

Health insurance is mandatory and students must demonstrate proof of insurance at registration. Students have the option of purchasing the group plan offered by the Medical School, which can be purchased at registration.

**Disability Insurance** is mandatory and can be purchased at registration.

**Criminal Background Check:** All accepted applicants to the medical school will be required to complete a criminal background check through AMCAS and Certiphi, the selected vendor for criminal background checks.

**Transcripts**

Transcripts of all university-level work must be on file in the Registrar’s Office for each medical student, including the degree statement from the university from which the student obtained his/her degree.

**Financial Aid**

The primary responsibility for financing a medical education rests with the student and his or her family. However, assistance is available to students who demonstrate financial need and meet all other eligibility criteria. Students anticipating the need for financial assistance during
their medical education should begin researching their options as early as possible.

Students wishing to be considered for financial assistance must begin by completing a Free Application for Federal Student Aid (FAFSA) (http://www.fafsa.ed.gov). Although medical students are automatically considered independent for the purposes of completing the FAFSA, parental data is required if a student wishes to be considered for institutional aid programs. The School of Medicine’s priority filing deadline is March 1st of each year. Students interested in attending the WSU School of Medicine should complete the application process by the priority date even if their admission has not yet been confirmed. Complete application instructions and other required documents are available on the School of Medicine (https://www.med.wayne.edu/ume-financial-aid) website.

For students who qualify, financial aid is available in the form of loans, grants, scholarships and/or work-study, from federal, state, institutional and/or private sources. Offers of assistance are made to students after they have fulfilled all financial aid requirements and have been admitted to the School of Medicine.

The Admissions Office awards renewable full and partial tuition scholarships to a number of incoming freshmen per year in the amount of resident tuition. Partial tuition Board of Governors grants are awarded each year based on family financial need. Restricted private donor and private organization funds are awarded to students who demonstrate financial and merit-based criteria and meet the guidelines specified by the donor. Student loans are available through U.S. and Canadian government loan programs and credit-based private educational loan programs. Credit-based private educational loan programs generally require that non-U.S. students provide a credit worthy U.S. co-signer.

Service obligation programs are available to students who are willing to fulfill a commitment of ‘service’ to the organization providing the funding. Most programs require one year of service for each year of funding. The Health Professions Scholarship Program offered by the Army, Navy and Air Force requires payback as a military medical officer. The U.S. Public Health Service offers the National Health Service Corps scholarship to medical students who commit to practicing primary care medicine in federally designated physician shortage areas for their service payback.

Students may wish to pursue outside sources of aid through community foundations, clubs, churches, employers, hospitals, or other nonprofit agencies. Web-based scholarship searches are available at no cost to the user. Students should avoid using fee-based scholarship search services and be wary of scholarship scams.

**Academic Program**

The Office of Undergraduate Medical Education is responsible for the overall management, administration, and supervision of the undergraduate medical curriculum. The undergraduate program in medicine consists of a core curriculum in normal and abnormal human biology followed by clerkships in clinical medicine and a year of required and elective experiences.

In the first year, through concentrated study of anatomy, histology, embryology, physiology, biochemistry, and genetics, students learn about the normal structure and function of the human body. In addition, there are units of study devoted to the neurosciences, translational medicine and to an introduction to clinical medicine.

In the second year, through concentrated study of pathology, immunology and microbiology, pharmacology, and psychiatry, students learn the basics of the effects of disease processes on structure and function, and the principles of drug action and therapy. This is followed by interdisciplinary organ system units of study devoted primarily to pathophysiology. Clinicians as well as basic scientists serve as lecturers. Additionally, students take a translational medicine course and through the clinical medicine II course, students receive training in preventive medicine, human values and ethics, physical diagnosis, clinical interviewing, human sexuality, laboratory medicine, and public health.

The third year curriculum consists of clerkships providing inpatient and outpatient clinical education and training in internal medicine, surgery, gynecology/obstetrics, pediatrics, psychiatry, neurology, and family medicine, and an office-based continuity clerkship.

The fourth year is devoted to required and elective study and all students are required to take a subinternship in medicine, and a month of emergency medicine. Within certain guidelines (for example, five of the eight elective periods must be spent in hospitals with a major Wayne State University affiliation), students can select from over 150 electives in 23 disciplines. In addition to the many programs offered by Wayne University, students can take advantage of approved elective programs offered by other institutions.

Students must pass Step 1 of the USMLE (United States Medical Licensing Examination) in order to be promoted from Year II to Year III. Students must also pass Step 2 (both clinical knowledge and clinical skills) examinations in order to graduate.

**Matriculation and Promotion**

Primary evaluation of students is the responsibility of the faculty of the appropriate departments or courses for Year I-III students, and the Elective Course Coordinators for Year IV students.

Students are evaluated promptly by the primary evaluators, who make recommendations to the Promotions Committee which may include: promotion, re-examination, repetition of all or part of the year, interruption or suspension or probation of a student’s program, or dismissal.

Questions of suitability for the study and practice of medicine on other than academic grounds are handled according to the University’s ‘Guidelines for Assisting Persons with Behavioral Problems.’

The Promotions Committee is chaired by the Vice Dean for Medical Education or his/her designee and consists of twelve members: four nominated from the faculty by the President of the Faculty Senate, with the advice and consent of the Executive Committee; four nominated from the Council of Departmental Chairpersons; and four selected by and from the student body. Faculty members serve three-year terms. Student members serve for one year and have full discussion privileges. Their votes are advisory to the Committee.

At appropriate intervals, the Promotions Committee meets to make promotional decisions based upon the student’s academic performance. The Committee has the obligation to assure that the rules of the School and the rights of the individuals involved have been fairly met. Decisions are transmitted for the Committee by the Associate Dean for Academic and Student Programs. Students have the right to appeal such decisions by direct petition to the Promotions Committee. In the event of such an appeal, the Committee may gather evidence and hear witnesses. The student involved has the right to be heard by the Committee and may call a reasonable number of witnesses to testify in his/her behalf.
Promotions Committee is the final decision-making body with regard to the promotion process. The student has the right to request the Office of the Provost to review any determinations made by the Promotions Committee of the School of Medicine relative to academic performance on his/her part.

*Leaves of Absence* may be granted to students with documented health problems (medical leave of absence), or to those with appropriate educational opportunities outside the School (educational leave of absence), for personal reasons (personal leave of absence); or the medical school can put students on an administrative leave of absence.

Any students whose enrollment is continued by the Promotions Committee, or, in the case of Leaves of Absence, by the Vice Dean for Medical Education or his/her designee, is considered to be making academic progress toward the M.D. degree.

**Grading**

The grading system throughout all years of the School’s curriculum is:

- ‘H’ (Honors)
- ‘S’ (Satisfactory)
- ‘U’ (Unsatisfactory)
- ‘I’ (Incomplete)

The exception to this rule is Year 3 where an S+ (Satisfactory with commendations) can be achieved in all clerkships except the Continuity Clinic Clerkship. The minimum passing grade is ‘S.’ In order to be promoted from year to year, students must obtain ‘S’ on all course work and complete all requirements established by course directors.

**Graduation Requirements**

A student regularly registered in the School of Medicine may receive the degree Doctor of Medicine upon the fulfillment of the following requirements:

1. He/she must be at least 21 years of age, must exhibit good moral character, and must be suitable for the practice of medicine.
2. He/she must have satisfactorily completed all the academic requirements established by the School.
3. He/she must have paid all fees in full, and have all holds released.
4. He/she must pass Step 1 and pass Step 2 (clinical knowledge) and Step 2 (clinical skills) of National Board examinations.

**M.D. Curriculum**

**Year 1**

<table>
<thead>
<tr>
<th>Required courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MD1 5000 Gross Anatomy</td>
<td>12</td>
</tr>
<tr>
<td>MD1 5100 Histology/Embryology</td>
<td>6</td>
</tr>
<tr>
<td>MD1 5200 Biochemistry</td>
<td>6</td>
</tr>
<tr>
<td>MD1 5300 Physiology</td>
<td>6</td>
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<tr>
<td>MD1 5400 Medical Genetics</td>
<td>3</td>
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<td>MD1 5500 Clinical Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>MD1 5600 Neuroscience</td>
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**Year 2**

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<th>Required courses</th>
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</thead>
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<td>MD2 6000 Immunology / Microbiology / Infectious Disease</td>
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**Year 3**

<table>
<thead>
<tr>
<th>Required courses</th>
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<tr>
<td>MD3 7000 Continuity Clinical Clerkship</td>
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</tr>
<tr>
<td>MD3 7100 Family Medicine Clerkship</td>
<td>4</td>
</tr>
<tr>
<td>MD3 7200 Internal Medicine Clerkship</td>
<td>8</td>
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<tr>
<td>MD3 7300 Pediatrics Clerkship</td>
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<td>MD3 7400 Surgery Clerkship</td>
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<tr>
<td>MD3 7500 Psychiatry Clerkship</td>
<td>4</td>
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<tr>
<td>MD3 7600 Obstetrics and Gynecology Clerkship</td>
<td>8</td>
</tr>
<tr>
<td>MD3 7700 Neurology Clerkship</td>
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**Year 4**

<table>
<thead>
<tr>
<th>Required Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD4 8160 Emergency Medicine Subinternship</td>
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</tr>
</tbody>
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**Cooperative Electives Exchange Program**

The Deans of the four Michigan medical schools, acting as the Michigan Medical Schools Liaison Committee, have signed cooperative agreements allowing students full credit for courses taken as electives at any one of the participating medical schools:

- Wayne State University
- University of Michigan
- Michigan State University
- Michigan State University College of Osteopathic Medicine.

The Deans intend the program ‘to make the best use of one another’s resources to the greater advantage of the student and the Michigan community. By allowing medical students full academic credit for elective courses taken at any one of our respective medical schools, our students will be able to share productively in the learning and training opportunities of the entire State.’

Under the course exchange program, election of an ‘away course’ at one of the cooperating schools requires approval of both the parent and host institutions. Enrollment, matriculation and fee payments continue without alteration at the parent institution; however, students are responsible for all travel and living expenses incurred during the ‘away’ elective. Additional information can be obtained from Records and Registration, School of Medicine. Under the course exchange program, election of
an ‘away course’ at one of the cooperating schools requires approval of both the parent and host institutions. Enrollment, matriculation and fee payments continue without alteration at the parent institution; however, students are responsible for all travel and living expenses incurred during the ‘away’ elective. Additional information can be obtained from Records and Registration in the School of Medicine.

**Medical Doctor Courses - First Year (MD1)**

**MD1 5000 Gross Anatomy Cr. 12**
Normal structure and organization of the human body; lectures, small group presentations, radiologic anatomy sessions, and dissection of the human body. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5100 Histology/Embryology Cr. 6**
Normal appearance of human cells, tissues and organs; structure and functional role in the human body and their development in the human embryo and fetus. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5200 Biochemistry Cr. 6**
Principles of medically-related biochemistry; structure and function of proteins, energy metabolism, biochemical pathways, and gene expression. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5300 Physiology Cr. 6**
Normal function of the human body: cells, tissues, musculo-skeletal, hematopoietic, and other organ systems. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5400 Medical Genetics Cr. 3**
Basic genetic principles and tools of molecular genetics; preparation for application of these concepts in clinical practice. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5500 Clinical Nutrition Cr. 3**
Concepts related to clinical nutrition, and their application; function of nutrients, how nutrients are used in the body, role of nutrients in disease. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5600 Neuroscience Cr. 8**

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5710 Clinical Medicine I: Small Group Cr. 0**
Clinical practice, including medical interviewing, doctor/patient communication, physical exam skills, role of professionalism in medicine. Offered Yearly.

**Prerequisite:** MD1 5700, (may be taken concurrently).

**Restriction(s):** Enrollment limited to students with a class of Med First Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD1 5730 Population, Patient, Physician Cr. 6**
Must be registered as a Year 1 medical student. Offered Winter.

**Restriction(s):** Enrollment is limited to Medical level students.

**MD1 5800 Directed Study Cr. 1-12**
Individualized curriculum designed to enhance knowledge and skills in preparation for the next phase of medical school. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**Medical Doctor Courses - Second Year (MD2)**

**MD2 6000 Immunology / Microbiology / Infectious Disease Cr. 10**
Understanding host-parasite relationships, including workings of the innate and acquired immune protective systems. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD2 6100 Pharmacology Cr. 5**
Understanding biochemical and molecular mechanisms of drug action with the anatomical distribution of drugs in the body and the physiologic responses to drugs. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD2 6200 Psychiatry Cr. 3**
Recognizing, assessing, and treating the common psychiatric disorders seen in adults and children in the general hospital setting. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD2 6300 Pathobiology Cr. 5
Introduction to mechanisms and cellular consequences of human disease. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD2 6400 Pathophysiology Cr. 18
Interdisciplinary course; pathophysiology of the organ systems, including respiratory, hematologic, cardiovascular, renal, dermatology/ connective tissue, endocrine, gastrointestinal, and neurologic systems. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD2 6500 Clinical Medicine II Cr. 7
Knowledge, skills and attitudes needed for the clinical practice of medicine, learned through continued instruction in advanced physician-patient communication skills; additional competencies in physical examination and diagnosis. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD2 6510 Clinical Medicine II: Physical Diagnosis Cr. 0
Advanced physician-patient communication skills; additional competencies in physical examination and diagnosis. Offered Yearly.
Prerequisite: MD2 6500, (may be taken concurrently),
Restriction(s): Enrollment limited to students with a class of Med Second Year, enrollment is limited to students with a major in Medicine, enrollment limited to students in the Medical Doctor program, enrollment is limited to Medical level students, enrollment limited to students in a Doctor of Medicine degree, enrollment limited to students in the School of Medicine.

MD2 6520 Translational Medicine II Cr. 2
Students build upon the knowledge and skills learned in the Year 1 Translational Medicine course, focusing on the scientific method to determine causation in health/sickness and skills to translate current clinical research to patients. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD2 6600 Directed Study Cr. 1-12
Students participate in an individualized curriculum designed to enhance their knowledge and skills in preparation for the next phase of medical school. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med First Year or Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD2 6610 Independent Study: Step 1 Preparation Cr. 1
Students will develop and implement independent study plans in preparation for taking the mandatory Step 1 United States Medical Licensing Examination (USMLE). Offered Yearly.
Restriction(s): Enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD2 6650 Step 1 Summer Preparation Cr. 2-8
Students will be provided the opportunity to enhance their Step 1 examination readiness through formal classroom and independent learning. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

Medical Doctor Courses - Third Year (MD3)

MD3 7000 Continuity Clinical Clerkship Cr. 3
A continuity experience in which the basic skills, knowledge and attitudes necessary to manage the care of patients in an out-patient primary care setting are learned. Offered Every Term.
Prerequisite: MD3 7000, (may be taken concurrently), ; MD3 7100, (may be taken concurrently), ; MD3 7200, (may be taken concurrently),
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7100 Family Medicine Clerkship Cr. 4
Practice of family medicine learned in a community-based primary care setting; experiencing care and treatment of children, adolescents, and adults with acute and chronic disease. Offered Every Term.
Prerequisite: MD3 7000, (may be taken concurrently), ; MD3 7300, (may be taken concurrently), ; MD3 7200, (may be taken concurrently),
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7200 Internal Medicine Clerkship Cr. 8
Practical experience in recognition, evaluation, diagnosis, and management of hospitalized adult patients with acute non-surgical illnesses. Offered Every Term.
Prerequisite: MD3 7000, (may be taken concurrently), ; MD3 7100, (may be taken concurrently), ; MD3 7000, (may be taken concurrently),
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7300 Pediatrics Clerkship Cr. 8
Practical experience in recognition, evaluation, diagnosis, and management of pediatric patients in in-patient and ambulatory care settings. Offered Every Term.
Prerequisite: MD3 7200, (may be taken concurrently), ; MD3 7100, (may be taken concurrently), ; MD3 7000, (may be taken concurrently),
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD3 7400 Surgery Clerkship Cr. 8
Practical experience in recognition, evaluation, diagnosis, and management of patients in general surgery or surgical sub-specialties. Offered Every Term.
Prerequisite: MD3 7500, (may be taken concurrently); MD3 7600, (may be taken concurrently); MD3 7700, (may be taken concurrently).
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7500 Psychiatry Clerkship Cr. 4
Practical experience in recognition, evaluation, diagnosis, and management of patients with behavioral and emotional brain disorders. Offered Every Term.
Prerequisite: MD3 7400, (may be taken concurrently); MD3 7500, (may be taken concurrently); MD3 7700, (may be taken concurrently).
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7600 Obstetrics and Gynecology Clerkship Cr. 8
Practical experience in recognizing, evaluating, diagnosing, and managing the health care of women in a variety of inpatient and outpatient settings. Offered Every Term.
Prerequisite: MD3 7400, (may be taken concurrently); MD3 7500, (may be taken concurrently); MD3 7700, (may be taken concurrently).
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7700 Neurology Clerkship Cr. 4
Practical experience in recognition, evaluation, diagnosis, and management of patients with disorders of the nervous system. Offered Every Term.
Prerequisite: MD3 7400, (may be taken concurrently); MD3 7500, (may be taken concurrently); MD3 7600, (may be taken concurrently).
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7800 Directed Study Cr. 1-12
Individualized curriculum designed to enhance knowledge and skills in preparation for the next phase of medical school. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7810 Independent Study: Step 1 Extended Prep Cr. 0
Students use curricular time for continued preparation for the Step 1 board exam. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD3 7815 Year 3 General Elective Month Cr. 3
Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

Medical Doctor Courses - Fourth Year (MD4)

MD4 8000 Fabric of Society Cr. 6
Work with vulnerable populations and stigmatized patients including the elderly, homeless, addicted, handicapped, pregnant teens and others. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8010 Humanities in Medicine Cr. 6
Work with vulnerable populations and stigmatized patients including the elderly, homeless, addicted, handicapped, pregnant teens and others. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8020 Medical Education Cr. 6
Processes involved in evaluation of courses; coordination of the assessment of Year 1-2 courses. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8025 Curriculum Development Cr. 6
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8030 Medicine and Political Action Cr. 6
Observation and participation in medical areas that are politically in the forefront of medicine today. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8035 Students Teaching and Educating Peers Cr. 6
Students will learn and apply techniques to prepare medical students for the Step 1 examination, as well as lead Step 1 preparation sessions. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major, minor, or concentration in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8036 Independent Service Learning Cr. 3,6
Students will participate in a Service Learning Program within a community organization providing direct service to the organizations clientele. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major, minor, or concentration in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8040 Special Topics in Anatomy and Cell Biology Cr. 3,6
Review of research training in gross anatomy, cell biology, histology, embryology, or neuroscience. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8041 Gross Anatomy Teaching Lab Cr. 6
Students taking this elective will gain teaching and mentorship experience in preparation for a career in academic medicine by teaching freshman medical students dissection skills in the anatomy labs. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8045 Medical Ethics Cr. 6
Medical ethics issues and concerns in the ICU, PICU, NICU, as well as those associated with a medical ethics committee. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8046 Street Medicine: Detroit Cr. 3,6
Knowledge and skills necessary to promote health, prevent illness, and manage the common chronic, and minor acute primary care needs of adults who are experiencing homelessness in Detroit. Clinical Experience (CLN): students will complete 120 hours of clinical education experience during their one-month rotation Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8050 General Anesthesiology Cr. 3,6
Practice of anesthesiology including preoperative assessment, delivery of general and regional anesthesia, equipment use, and monitoring techniques. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8060 Pain Management Cr. 6
Diagnosis, treatment and management of acute and chronic pain syndromes related to malignant and nonmalignant diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8070 Pediatric Anesthesiology Cr. 6
Preoperative assessment, delivery of general and regional anesthesia, equipment use, and monitoring techniques in pediatric patients. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8100 Law and Medicine Cr. 3,6
Legal issues associated with practicing clinical medicine. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8120 General Dermatology Cr. 3,6
Fundamentals of diagnosing, treating and managing patients with common dermatologic disorders. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8140 General Emergency Medicine Cr. 3,6
Initial evaluation, stabilization, and management of patients in the emergency department. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8145 ER Ultrasound Cr. 6
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8150 Emergency Medicine Research Cr. 3,6
Process and participation in emergency medicine research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 8160 Emergency Medicine Subinternship Cr. 7
Evaluation, stabilization, and treatment of a variety of patients presenting to the ER with urgent and emergent illness and trauma. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.
MD4 8165 Advanced Emergency Medicine Cr. 6
Being the primary provider for patients while in the ER, from initial evaluation to completion of disposition. Offered Every Term.
**Prerequisite:** MD4 8160, with a minimum grade of S
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in a Doctor of Medicine degree, enrollment limited to students in the School of Medicine.

MD4 8170 General Family Medicine Cr. 3,6
Enhancement of knowledge and skills in conducting a history/physical, diagnosing/managing patients, and participation in common office procedures in the outpatient setting. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8171 Rural Family Medicine Cr. 3-6
Students will gain a better understanding of the unique needs, challenges and rewards of practicing medicine in a medically underserved, rural or small-town community. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8172 Family Medicine Student Run Free Clinic Cr. 6
Students are involved in supervision of day-to-day operations of Student Run Free Clinic. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8175 MPH Master’s Project Cr. 6
Students apply the knowledge and skills gained from classroom and field experiences to a scholarly project of their own design and execution. The final products are a written paper and an oral presentation. Offered Irregularly.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

MD4 8180 Clinical Aspects of Occupational Medicine Cr. 3,6
Health risks of different occupational settings; basic skills to diagnose and manage select occupational illnesses and injuries. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8210 Family Medicine Subinternship Cr. 7
Students expand on Year 3 family medicine clerkship experience with more intensive involvement in select patient populations. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8220 Hospice/Palliative Medicine Cr. 3,6
Care of terminally ill patients; basic communication and interactive skills associated with these patients and their families. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8230 Maternal and Child Health Cr. 6
Gaining experience in an aggressive family medicine OB service. Offered Yearly.
**Prerequisite:** MD3 7600, with a minimum grade of S
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in a Doctor of Medicine degree, enrollment limited to students in the School of Medicine.

MD4 8240 Research in Family Medicine Cr. 3,6
Research process; participation in family medicine research. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8250 Sports Medicine Cr. 6
Knowledge and skills to assess the fitness and health risks of athletes. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8255 International Elective Cr. 6
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8258 International Away Cr. 6
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major or concentration in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8260 Allergy and Clinical Immunology Cr. 3,6
Conducting an allergic H & P; understanding basic mechanisms, pathophysiology and testing of allergic and immunologic disorders. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major, minor, or concentration in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8261 Advanced Physical Diagnosis Cr. 6
Students will refine their basic physical examination, as well as advance their skills in evaluating hypertension, thyroid disease, cardiac murmurs, breast abnormalities, and geriatric assessment. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8262 Ambulatory Subspecialty in Internal Medicine Cr. 6
Students will learn the practice of ambulatory internal medicine, with an emphasis placed upon bedside teaching, physical diagnosis and in-depth discussion of the clinical, diagnostic and therapeutic aspects of each case. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8264 Independent Study in Medical Education Cr. 6
Students will improve their skills as learners and critical thinkers, and gain an appreciation of the importance of lifelong learning. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8265 Urban Medicine for Visiting Students Cr. 6
Students will learn academic internal medicine in an urban setting with an emphasis on recognizing, studying, treating, and preventing disparities in healthcare. Offered Every Term.
Restriction(s): Enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8270 Ambulatory Med Cr. 6
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8280 Cardiology Cr. 3,6
Basic history/physical, diagnostic, treatment and management skills associated with common inpatient cardiac problems. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8281 Interventional Cardiology Cr. 6
Exposure to an interventional lab. Gaining familiarity with the clinical utility of routine cardiovascular interventions and hemodynamic measurements. Offered Yearly.
Prerequisite: MD4 8280, with a minimum grade of S
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8290 Cardiology Consultation Cr. 3,6
Skills needed to consult with medical and surgical patients with cardiac problems. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8310 Coronary Care Unit Cr. 6
Diagnosis and treatment of common cardiac problems; care for critically ill patients admitted to cardiac care unit. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to Medical level students.

MD4 8320 Critical Care Medicine Cr. 3,6
Management of critically ill patients to improve diagnostic, problem solving, assessment, and treatment skills. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8340 Endocrine/Bone and Mineral Metabolism Cr. 3,6
Diagnosing, treating, and managing patients with metabolic bone diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8350 Endocrinology Research Cr. 6
The research process; participation in research associated with medical endocrinology. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8360 Endocrine/Metabolism Cr. 3,6
Techniques of conducting a history and physical, diagnostic, therapeutic, and laboratory approaches to endocrine disorders. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8365 Scholarly Writing for Critical Appraisal of Clinical Research Cr. 4
Peer review for clinical research practice. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year.

MD4 8370 Gastroenterology Cr. 3,6
Conducting a history and physical exam, and diagnosing, treating, and managing patients with common gastrointestinal diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8380 Gastroenterology Research Cr. 6
The research process; participation in specific gastroenterology research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8390 General Internal Medicine Inpatient Cr. 3,6
Common problems encountered in an internal medicine inpatient clinical setting. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8391 Internal Medicine: Miscellaneous Cr. 3,6
Students learn various topics and issues in general internal medicine. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8392 Metabolic Nutrition and Weight Management Cr. 3,6
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8395 Clinical Pharmacology Cr. 6
Four-week on-line elective where students use case-based scenarios to apply pharmacology principles in a clinical setting. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8400 Clinical Genetics Cr. 3,6
Interviewing, conducting a physical examination, and other patient interactions in patients with suspected or known genetic diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8420 Geriatric Medicine Cr. 6
Conduct of a comprehensive assessment and treatment of a geriatric patient; factors affecting the health of the elderly. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8430 Hematology Cr. 3,6
Familiarization with a variety of hematologic and oncologic disorders; how to diagnose, treat, and manage patients with these disorders. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8440 HIV/AIDS Cr. 6
Basic knowledge and skills associated with care of HIV-infected persons in outpatient and inpatient settings. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8450 Infectious Disease Cr. 3,6
Evaluating, diagnosing and treating patients with acute and chronic infectious diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8460 Infectious Disease Research Cr. 6
The research process; participation in specific infectious disease research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8470 Internal Medicine Subinternship Cr. 7
Expanding on Year 3 internal medicine clerkship experience; more intensive involvement in select patient populations. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8480 Medicine/Pediatrics Cr. 3,6
Aspects of the day-to-day practice of a physician specializing in an internal medicine/pediatric practice. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8490 Nephrology Cr. 3,6
Experience in diagnosing and managing patients with acute and chronic nephrologic problems. Offered Every Term.
Prerequisite: MD3 7200, with a minimum grade of S
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8500 Nephrology Consultation Service Cr. 6
Evaluation, diagnosis, and treatment of patients with renal problems. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8510 Oncology: Medical Cr. 3,6
Evaluation, diagnosis, treatment and management of patients with oncologic conditions. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8520 Oncology: Outpatient Cr. 3,6
Cancer patients in the outpatient setting: initial evaluations, types of malignant diseases, role of staging, conducting a focused follow-up of cancer patients. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to Medical level students.

MD4 8530 Oncology Research Cr. 6
The research process; participation in research involving patients with cancer. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8540 Otolaryngology Cr. 3,6
History and basic head and neck examination on patients with otolaryngologic disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8550 Otolaryngology Medical and Surgical: Head and Neck Cr. 3,6
Additional training in otolaryngology head and neck surgery. Offered Every Term.
Prerequisite: MD3 7200, with a minimum grade of S; MD3 7400, with a minimum grade of S.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8560 Otolaryngology Research Cr. 6
The research process; participation in otolaryngology research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8570 Palliative Medicine Cr. 3,6
Understanding of and skills in palliative medicine: communication, cultural issues, psycho-emotional and spiritual aspects of end of life care and death and dying. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8575 Complementary Medicine Cr. 6
The world of complementary medicine: what it is, how it is different from conventional medicine, how it is practiced, and what its benefits are. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8580 Primary Care Medicine Cr. 6
Common problems encountered in internal medicine outpatient clinical setting. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8590 Pulmonary Medicine Cr. 3,6
Diagnosis and management of a variety of pulmonary disorders; diagnosis of acute and chronic respiratory failure; interpretation of pulmonary tests. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8600 Pulmonary and Sleep Research Cr. 6
The research process; participation in pulmonary and sleep research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8610 Pulmonary Consultation Cr. 6
Diagnosis and management of a variety of pulmonary disorders; diagnosis of acute and chronic respiratory failure; interpretation of pulmonary tests. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8620 Rheumatology Cr. 3,6
Diagnosis and management of common rheumatologic problems; understanding ancillary procedures and lab tests. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8630 Sleep Disorders Cr. 6
Interviewing, physical examination, diagnosis, and therapy of patients with sleep disorders. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8640 Molecular Medicine Cr. 3,6
State-of-the-art molecular biological research and methods, relating to basic and applied research of human disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8650 General Neurology Cr. 3,6
Evaluation, diagnosis, treatment and management of patients with an array of general neurologic conditions. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8660 Neurology Consult Cr. 6
Pathogenesis, genetics, neurochemistry, imaging, diagnostic testing, presentation and treatment of Alzheimer’s and other forms of dementia. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8670 Clinical Neurology of AIDS Cr. 3,6
Common neurologic manifestations of AIDS and their evaluation and management. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8680 Neurology Consultation Cr. 6
Participation with neurology physicians in consultation for patients in the ER and other inpatient services. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8690 Movement Disorders Cr. 6
Evaluation, diagnosis, treatment and management of patients with neurologic movement disorders. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8700 Neurology - Oncology Cr. 6
Diagnosis, treatment and management of patients with malignancies of the neurologic system. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8710 Neurologic Sleep Disorders Cr. 6
Operations of a sleep lab and evaluation of patients with sleep disorders. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8720 Neurology Research Cr. 3,6
The research process; participation in neurology research. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8730 Neurology Pediatrics Cr. 3,6
Diagnosis, treatment, and management of a variety of neurologic disorders of infancy and childhood. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8740 Protective Mechanisms in the Nervous System Cr. 6
Basic mechanisms of nerve cell survival/injury; understanding the role of growth factors in the central nervous system. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8750 General Neurosurgery Cr. 3,6
Preoperative, intraoperative, and post-operative care of neurologic patients. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8760 Neurosurgery Research Cr. 3,6
Basic research principles as they apply to clinical questions in neurosurgery. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8770 General Gynecology Cr. 3,6
Signs, symptoms, and management of both surgical and nonsurgical gynecologic disease. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8800 Obstetrics Cr. 3,6
Signs, symptoms and management of normal/abnormal labor, and experience patients with intrapartum high risk conditions and intrapartum/postpartum complications. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8810 Obstetrics/Gynecology Cr. 3,6
Care of inpatient and outpatient obstetric and gynecologic patients, and participation in obstetric and gynecological procedures. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8820 Obstetrical Ultrasound Cr. 6
Basic knowledge and skills in obstetrical ultrasound. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8830 Maternal Fetal Medicine Cr. 3,6
Experience patients with common medical and obstetrical complications; development of skills in fetal assessment and evaluation of high risk pregnancies. Offered Every Term. 
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8850 Nurse Midwifery Cr. 3,6
Ambulatory women's health care delivery as performed by a certified nurse midwife, including management of labor and delivery. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year. Enrollment limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8860 Reproductive Endocrine and Infertility Cr. 3,6
Diagnosis and treatment of couples with infertility and reproductive endocrine disorders. Offered Every Term.  
Prerequisite: MD3 7600, with a minimum grade of S  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8870 Reproductive Genetics Cr. 3,6
Diagnostic, therapeutic and counseling procedures associated with reproductive genetics, fetal diagnosis, and fetal therapy. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8900 Ophthalmology Cr. 3,6
Conducting basic eye examinations; evaluation methods, management and treatment of eye diseases. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8909 Ophthalmic Research Cr. 3,6
The research process; participation in ophthalmic research. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8910 General Orthopedic Surgery Cr. 3,6
Conduct of an H & P, diagnosis and treatment of patients with orthopedic problems; participation in preoperative, operative, and post-operative care. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8911 Orthopedic Surgery Sports Medicine Cr. 3,6
Through the clinic and operating room settings, students will learn the assessment of the athlete, emergent care of injuries on the field, as well as common sport injuries. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8912 Orthopedic Hand Surgery Cr. 3,6
Students will learn about the care of patients with upper extremity disorders, including carpal tunnel, tendon injuries, hand fractures, arthritis of the hand and common congenital deformities. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8913 Orthopedic Foot/Ankle Surgery Cr. 3,6
Through the clinic and operating room, students will learn how to perform a history and physical exam, diagnose and treat patients that have foot or ankle complaints. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8914 Orthopaedic Surgery Research Cr. 3,6
Students participate in current orthopaedic surgery and biomechanics research. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8930 Orthopedic Traumatology Cr. 3,6
Basic surgical principles and pathophysiology, diagnosis, and management of a variety of traumatic orthopedic conditions. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8940 General Pathology Cr. 3,6
Functions of a clinical laboratory, including interpretation of surgical pathology. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8950 Anatomic Pathology Cr. 3,6
Basic pathologic processes; how gross, microscopic and other techniques are applied to the diagnosis and treatment of disease. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8970 Forensic Pathology Cr. 3,6
Basic mechanisms of injury; characteristic features of injury patterns; relationship between medicine and law. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8970 Forensic Pathology Cr. 3,6
Basic mechanisms of injury; characteristic features of injury patterns; relationship between medicine and law. Offered Every Term.  
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 8980 Tumor Genetics Cr. 6
Role of cytogenetics and molecular cytogenetics in diagnosis, management and prognosis of a patient's disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8990 General Pediatrics Cr. 3,6
Evaluating and managing children with common pediatric problems; aspects of normal growth and development. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8991 Child Abuse Identification and Treatment Cr. 6
Students will learn the techniques to identify and report suspected child abuse and neglect, as well as methods of treatment and prevention. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 8992 Pediatric Pulmonary Cr. 6
Students will learn the evaluation and treatment of pediatric patients with acute and chronic respiratory diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9000 Adolescent Pediatrics Cr. 6
Interviewing and physical examination on adolescent patients; normal physical, cognitive and psychosocial development of adolescent patients. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9010 Allergy, Immunology, and Rheumatology Cr. 3,6
Day-to-day care of pediatric patients with common allergic, immunologic and rheumatologic disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9040 Developmental Behavioral Pediatrics Cr. 6
Distinguishing normal from abnormal development; approaches to assessment of disorders of learning and development. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9050 Pediatric Genetics Cr. 3,6
Abnormal morphology of children; diagnostic skills in various inborn errors. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9060 Medical Toxicology and Poison Control Cr. 6
Assessment and management of pediatric patients with suspected or known poisoning or toxic exposure. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9070 Neonatology Cr. 3,6
Evaluation of healthy newborns; common newborn conditions; care of high risk infants and their mothers. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9080 Pediatric Cardiology Cr. 3,6
Skills in taking and performing a cardiac exam; normal hemodynamics; natural history of children with congenital and acquired heart disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9090 Pediatric Ear, Nose and Throat Cr. 3,6
Entire scope of pediatric otolaryngology. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9100 Pediatric Emergency Medicine Cr. 3,6
Observation and participation in care of children presenting with a wide range of conditions in pediatric emergency medicine. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9110 Pediatric Endocrinology and Diabetes Cr. 3,6
Evaluation of normal physical growth and development; recognition of common pediatric endocrine problems. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9120 Pediatric Gastroenterology, Hepatology, and Nutrition Cr. 3,6
Performance of a history and physical exam, development of a diagnosis, and caring for patients with disorders of the gastrointestinal tract. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9130 Pediatric Hematology/Oncology Cr. 3,6
Basic skills to conduct an H & P and diagnose and treat children with hematologic and oncologic problems. Offered Every Term.
Prerequisite: MD3 7300, with a minimum grade of S
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 9140 Pediatric Infectious Disease Cr. 6
Evaluation, diagnosis, treatment, and management of common pediatric infections. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9150 Pediatric Intensive Care Cr. 3,6
Basic diagnostic and therapeutic approach to care of critically ill children. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9160 Pediatric Nephrology Cr. 3,6
Basic skills to examine, diagnose and treat patients with common renal diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9170 Pediatric Neurology Cr. 3,6
Performance of a complete neurological history, examination, and ordering of appropriate laboratory tests to diagnose and manage pediatric patients with neurologic disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9180 Pediatric Pathology: Autopsy and Surgical Cr. 3,6
Correlation of clinical, anatomical and laboratory findings in diagnosing pediatric disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9190 Pediatric Plastic Surgery/Craniofacial Cr. 3,6
Recognition and development of a treatment plan for congenital craniofacial anomalies and vascular lesions. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9200 Pediatric PMR Cr. 3,6
Childhood functional impairments including head injury, spinal cord injury, cerebral palsy, neuromuscular diseases, sports medicine, and electromyography. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9210 Pediatric Subinternship Cr. 7
Senior students expand upon Year 3 pediatric clerkship experience with more intensive involvement in select patient populations. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9230 Physical Medicine and Rehabilitation Cr. 3,6
Performance of an H & P; development of greater understanding of diagnosis, management and treatment of patients with neuromuscular and musculoskeletal problems.] Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9240 Spinal Cord Injury Rehabilitation Cr. 3,6
Management of patients with spinal cord injuries; role of rehabilitation team approach to spinal cord injuries. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9250 Traumatic Brain Injury Rehabilitation Cr. 3,6
Management of patients with traumatic brain injuries; role of a rehabilitation team in management of patients with traumatic brain injuries. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9260 Brain Imaging of Childhood Onset of Neuropsychiatric Disorders Cr. 3,6
Brain imaging techniques; neurodevelopmental approaches. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9261 Emergent and Consult Liaison Psychiatry Cr. 3,6
Students will learn to assess psychiatric patients, manage acute intoxication and withdrawal syndromes, manage psychiatric patients with medical comorbidities and learn basic managed care principals. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9262 Emergency Psychiatry Cr. 3-6
Students will learn to evaluate, diagnose, and treat psychiatric patients in an emergency setting. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9263 Clinical Electro-Physiology Research Cr. 3-6
Students will participate in the academic research process, as well as learn the strengths and weakness of the different electrophysiological testing modalities. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 9264 Psychiatry Research Cr. 3,6
Students will participate in research projects and learn the clinical components associated with neuropsychiatric research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9265 Outpatient Psychiatry Cr. 3-6
The student will observe routine outpatient practice and have an opportunity to evaluate new outpatients under the supervision of residents/staff. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9270 Child and Adolescent Psychiatry Cr. 3,6
Experience of a variety of children and adolescents with psychiatric disorders; evaluation of patients and provision of care. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9290 Psychiatric Consultation Cr. 3,6
Knowledge and skills associated with the psychiatric interview; mental status examination; development of knowledge base in behavioral medicine and treatment of psychiatric illness. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9300 Psychiatry: Geriatrics Cr. 3,6
Knowledge and skills associated with the psychiatric interview; mental status examination; interpretation of data, diagnosis, psychopharmacology and psychotherapy in geriatric patients. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9310 Psychotherapy Elective Cr. 3,6
Psychodynamic, cognitive, and group therapies; observation and participation in psychotherapeutic encounters. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9320 Research and Practice in Addiction Psychiatry Cr. 3,6
Diagnosis and management of individuals with addictive disorders; psychotherapeutic and pharmacotherapeutic interventions for problems with psychotropic substances. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9340 Substance Abuse Cr. 3,6
Inpatient and outpatient treatment of substance use disorders. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9345 Psychiatric Care of Veterans Cr. 6
Clinical Experience; Students will complete 160 hours of clinical education experience during their one-month rotation. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students.

MD4 9350 General Diagnostic Radiology Cr. 3,6
Basic techniques of imaging; skills to diagnose and interpret radiographic studies. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9360 Intervention Radiology Cr. 3,6
Role of interventional radiologic techniques in diagnosis and management of disease. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9370 Nuclear Medicine Cr. 3,6
Performing and interpreting clinical nuclear medicine procedures; role of nuclear medicine in clinical practice. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9380 Radiation Oncology Cr. 3,6
Role of radiation therapy in variety of adult and pediatric malignancies. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9390 General Surgery Cr. 3,6
Experience in a variety of elective and acute surgical cases; diagnostic skills; basic surgical techniques and procedures. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9392 Advanced Surgical Skills Cr. 6
Students will learn advanced surgical skills in preparation for their surgery residency program. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
MD4 9393 Breast Surgery Cr. 6
Students will gain exposure to the diagnosis and treatment of breast diseases at the Walt Comprehensive Breast Center. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9400 Acute Burn Care Cr. 6
Physiologic principles and clinical management of burn victims. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9410 Cardiovascular Surgery Cr. 3,6
Diagnosis and treatment of cardiology diseases using invasive surgical approaches. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9430 Gastrointestinal Surgery Cr. 6
Pathophysiology and management of gastrointestinal surgical diseases. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9440 Pediatric Surgery Cr. 3,6
Diagnosis and care of surgical disorders in children. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9450 Surgery Research Cr. 6
The research process; participation in surgical research. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9470 Plastic and Reconstructive Surgery Cr. 3,6
Evaluation, formulation of treatment plan, management of postoperative care, and participation in surgical procedures for patients requiring plastic surgery. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9480 Surgical Intensive Care Unit Cr. 3,6
Care of critically ill surgical patients; common surgical intensive care unit procedures. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9490 Surgery Subinternship Cr. 7
Senior students expand upon their Year 3 surgery clerkship experience with more intensive involvement in select patient populations. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9495 Advanced Maxillofacial Surgery Cr. 7
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9500 Transplant Surgery Cr. 3,6
Basic surgical principles and pathophysiology, diagnosis and management of a variety of transplant surgical conditions. Offered Every Term.
Prerequisite: MD3 7200, with a minimum grade of S; MD3 7400, with a minimum grade of S
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9510 Acute Care Surgery Cr. 3,6
Evaluation, diagnosis, treatment, and management of critically ill patients; basic procedures in the care of this population. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9520 Vascular Surgery Cr. 3,6
Pathophysiology, evaluation, diagnosis, and management of patients needing vascular surgery; participation of procedures for this population. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9528 Maxillofacial Surgery Cr. 6
In-depth exposure to the field of maxillofacial surgery and its subspecialties of trauma, oncology, and micro-vascular reconstruction. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

MD4 9530 General Urology Cr. 3,6
Pathophysiology, evaluation, diagnosis and management of patients with urologic disease; participation in urologic surgery. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.
**MD4 9535 Step 2 Preparation Cr. 0**
Students use this curricular time to prepare for the Step 2 board exam.
Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment limited to students in the School of Medicine.

**MD4 9540 Male Reproductive Medicine Cr. 3.6**
Understanding of the basic physiology of sperm production and photophysiology that lead to infertility and sexual dysfunction. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to students with a major in Medicine.

**MD4 9545 Step 2 Preparation Cr. 1**
Students will be introduced to methods for successfully passing the mandatory Step 2 CK United States Licensing Examination (USMLE). Offered Irregularly.
**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.

**MD4 9999 Year 3 Additional Course Work Cr. 0**
Students complete Year 3 course work prior to starting Year 4 course work. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Med Third Year or Med Fourth Year, enrollment is limited to students with a major in Medicine, enrollment is limited to Medical level students, enrollment limited to students in the School of Medicine.