# **MEDICINE (M.D.)**

# Office of Enrollment Management Services

Office of Admissions
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# Admission to M.D. Program

The School of Medicine accepts 290 students for its entering class. The students are selected from a large number of applicants who apply through the American Medical College Application Service (AMCAS).

# **Academic Requirements for Admission**

Wayne State University School of Medicine requires applicants for admission to have earned a bachelor's degree.

Required subjects for baccalaureate preparation are:

- · general physics;
- · inorganic and organic chemistry;
- · general biology;
- · college writing or composition.

It is recommended that students complete lab work in the above science courses. and 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 should take this test no later than September of the year prior to matriculation. 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.
- 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 decision.
- 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.
- 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 the new application.

# **Selection Factors**

The Committee on Admissions will select applicants who, in its judgment, will make the best students and physicians. Consideration is given to the entire record, including grade point average, Medical College Admission Test scores, recommendations and interview results (one-on-one interview and multiple mini-interviews), as these reflect an applicant's personality, maturity, character and suitability for medicine. Additionally, the committee regards as desirable certain health care experiences, such as volunteering or working in hospitals, hospices, nursing homes or doctor's offices. The committee also values experience in biomedical laboratory research. Following an initial screening process, students with competitive applications are selected to complete a secondary application. Special encouragement is given to candidates from medically underserved areas in Michigan.

As a state-supported school, the institution must give preference to Michigan residents; however, out-of-state applicants are encouraged to apply. An applicant's residency is determined by university regulations. Applicants must be a U.S. or Canadian citizen or U.S. permanent resident to be eligible for admission. Students whose educational backgrounds include work outside the United States must have completed two years of course work, including the prerequisite courses at a U.S. or Canadian college or university. Canadian citizens are considered non-resident for both admission and tuition purposes. Interviews are required but are scheduled only with those applicants who are given serious consideration. Students are urged to apply by November 1.

# **Application and Acceptance Policies**

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

- An American Medical College Application Services application must be filed between June 1 and December 31 of the year preceding anticipated matriculation.
- Applicants must respond to acceptance offer within three weeks of the offer

# **Diversity and Integrated Student Services**

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**

Each student must present proof of a physical examination at or before registration for the first year. Students are also required to be annually tested for TB (skin test or chest x-ray). Additional vaccines and titers may be required.

### **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.

# **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 is structured in phases that divide the four years on a time, and more importantly, conceptual level.

- The initial segment (18 months) establishes a framework of skills, scientific, clinical and societal – a chassis on which to build the practice of medicine.
- The next segment (12 months) involves an intense clinical experience in all aspects of medicine.
- The final segment (14 months) sees students advance toward their career goals while being prepared for residency.

Phase 1 of the curriculum is aimed at "coaching up" our students, training them earlier, and providing context as to how/why to apply classroom learning within clinics and in the community. To give students an even greater start, we align the basic science curriculum to best take advantage of cadaver dissection opportunities for additional hands-on experience.

# Phase 1, Segment 1

The Segment 1 curriculum will be eight months in length and taught on a systems-based model. Each system is taught via lecture; small-group problem-based and case-based learning; and laboratory experiences. Of particular note, this segment is centered upon anatomic cadaver dissection. This is unusual in medical schools in 2018, but we consider it to be essential.

Systems curriculum present the anatomy, physiology, biochemistry, histology and genetics of each organ system, correlated with anatomic dissection.

Importantly, clinical education is also correlated with each system, as the physical exam and history exercised and instruction in the clinical skills course will mirror the system taught in the basic science portion.

# Phase 1, Segment 2

The second segment is concentrated on the abnormal – the diseased states of the human. This, again, is taught by organ system. Minor revisions are ongoing in this curriculum, which will build upon the existing systems approach.

Clinical instruction is centered upon the continuity clerkship in which each student is paired with a preceptor in community practice for a half day of clinic every other week. This real-patient experience is integrated with further instruction in clinical skills and regional/focused physical exam in the skills center.

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.

# Phase 2, Segment 3

This phase is defined as the 12 months of core clerkship courses, including orientation weeks, helping with the transition to clerkships, and a longitudinal course called Clinical Reasoning, Integration and Skills for Practice (CRISP). Students are assigned to faculty coaches to aid and assist in the student's growth in clinical mastery.

# Phase 3, Segment 4

This phase is 14 months in the expanded fourth year of medical school, which will start in April of the students' third year. Courses are one calendar month or, in some cases, two weeks. Rotations at other institutions (visiting or audition) and independent electives are supported and encouraged.

# **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. The 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)
- 'l' (Incomplete)

The exception to this rule is Year 3 where an S+ (Satisfactory with commendations) can be achieved in all clerkships. 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**

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

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

# M.D. Curriculum

# Segment 1 - Phase 1, Part 1 - Pre-Clerkship

Code	Title Cre	dits
Courses include:		
MD1 5001	Human Body Foundations I	10
MD1 5002	Human Body Foundations II	10
MD1 5003	Human Body Foundations III	10
MD1 5101	Clinical Skills 1A	1
MD1 5102	Clinical Skills 1B	1
MD1 5103	Clinical Skills 1C	1
MD1 5201	Population, Patient, Physician and Professionalism (P4) 1A	1
MD1 5202	Population, Patient, Physician and Professionalism (P4) 1B	1
MD1 5203	Population, Patient, Physician and Professionalism (P4) 1C	1
MD1 5301	Service Learning 1-A	0
MD1 5302	Service Learning 1-B	0
MD1 5303	Service Learning 1-C	0
Students can cho	ose one optional elective track:	
MD1 5511 & MD1 5512	Community Engagement Elective 1A and Community Engagement Elective 1B	
MD1 5521 & MD1 5522	Medical Education Research Elective 1A and Medical Education Research Elective 1B	

# Segment 2 Phase 1, Part 2 - Pre-Clerkship

Code	Title Cred	lita
	Title Cred	ıııs
Courses include:		
MD2 6001	Human Disease Foundations I	10
MD2 6002	Human Disease Foundations II	10
MD2 6003	Human Disease Foundations III	10
MD2 6101	Clinical Skills 2A	1
MD2 6102	Clinical Skills 2B	1
MD2 6103	Clinical Skills 2C	2
MD2 6201	Population, Patient, Physician and Professionalism (P4) 2-A	1
MD2 6202	Population, Patient, Physician and Professionalism (P4) 2-B	1
MD2 6203	Population, Patient, Physician and Professionalism (P4) 2-C	1
MD2 6301	Service Learning 2-A	0
MD2 6302	Service Learning 2-B	0
MD2 6303	Service Learning 2-C	0
MD2 6401	Clinical Experiential Course 2-A	1
MD2 6402	Clinical Experiential Course 2-B	1
MD2 6403	Clinical Experiential Course 2-C	1
MD2 6601	Step 1 Preparation Course 2A	1
MD2 6602	Step 1 Preparation Course 2B	1
MD2 6603	Step 1 Preparation Course 2C	1
MD2 6605	Clinical Synthesis and Integration Course	3
MD2 6610	Step-I Enhancement Course	2
MD2 6800	Preparation for Clerkships	5
Students can cho	oose one optional elective:	
MD2 6511	Community Engagement Elective 2A	
& MD2 6512	and Community Engagement Elective 2B	
MD2 6521	Medical Education Research Elective 2A	
& MD2 6522	and Medical Education Research Elective 2B	
MD2 6531 & MD2 6532	Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 2A	
	and Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 2B	
MD2 6541 & MD2 6542	Research Elective 2A and Research Elective 2B	

MD2 6911	Business of Medicine Elective 2A: Innovation and
& MD2 6912	Entrepreneurship: Foundations
	and Business of Medicine Elective 2B: Innovation
	and Entrepreneurship: Following the Roadmap

Total Credits 5

# Segment 3 - Phase 2 - Clerkship

Code	Title	Credits
MD3 7100	Family Medicine Clerkship	4
MD3 7200	Internal Medicine Clerkship	12
MD3 7300	Pediatrics Clerkship	6
MD3 7400	Surgery Clerkship	12
MD3 7500	Psychiatry Clerkship	4
MD3 7600	Obstetrics and Gynecology Clerkship	6
MD3 7700	Neurology Clerkship	4
MD3 7950	Clinical Reasoning, Integration, Skills and Pract (CRISP) Class is offered for 1 credit per 12 week block	tice 4

# Segment 4 - Phase 3 - Post-Clerkship

**Total Credits** 

3		
Code	Title Cre	dits
MD4 9620	Clinical Reasoning Using Integrated Skills in Education (CRUISE) Taken in 4 terms for a maximum of 8 credits	8
MD4 9610	Teaching and Learning in Medical Education (TLMed) Taken in 4 terms for a maximum of 8 credits	8
MD4 8160	Emergency Medicine Core Clerkship	7
MD4 9545	Step 2 Preparation	1
Required Acting I fulfill the requiren	nternship (choose 1 of 3 Acting Internships below to nent):	7
MD4 8210	Acting Internship: Family Medicine	
MD4 8470	Acting Internship: Internal Medicine	
MD4 9210	Acting Internship: Pediatric	
Select one capstone course:		6
MD4 9392	Residency Preparation - Surgical	
MD4 9600	Residency Preparation - Nonsurgical	
Required MD4 Ele	ectives: seven courses (6 credits each) to be	42
	4 courses not taken to satisfy any of the above linical Elective is required each term	
Total Credits		79

# **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 5001 Human Body Foundations I Cr. 10

Human Body Foundations I is the first of a 3-part course series in the basic sciences that engages medical students with knowledge of the normal structure and function of the human body, prepares them for the study of human disease, sets the stage for success on the USMLE Step I exam, and provides the scaffolding on which the clerkship curriculum is built. Part I emphasizes fundamental principles in biochemistry, cell biology, embryology, histology, genetics, physiology, and pharmacology, and introduces students to the anatomical investigation of tissues and organs through full-body cadaver dissection beginning with the Musculoskeletal System. Offered Yearly.

#### MD1 5002 Human Body Foundations II Cr. 10

Human Body Foundations II is the second of a 3-part course series in the basic sciences that engages medical students with knowledge of the normal structure and function of the human body, prepares them for the study of human disease, sets the stage for success on the USMLE Step I exam, and provides the scaffolding on which the clerkship curriculum is built. Part II focuses on three organ systems of the body: Cardiovascular/Respiratory, Renal/Urinary, and Gastrointestinal, emphasizing fundamental principles of physiology, histology, biochemistry, pharmacology, genetics, and embryology, as well as anatomical study through full-body cadaver dissection of the visceral systems. Offered Yearly.

# MD1 5003 Human Body Foundations III Cr. 10

Human Body Foundations III is the last of a 3-part course series in the basic sciences that engages medical students with knowledge of the normal structure and function of the human body, prepares them for the study of human disease, sets the stage for success on the USMLE Step I exam, and provides the scaffolding on which the clerkship curriculum is built. Part III focuses on the Reproductive & Endocrine Systems and the Central Nervous System and emphasizes fundamental principles of neuroscience, physiology, histology, embryology, genetics, biochemistry, and pharmacology. The sequence of full-body cadaver dissection is brought to a close with the anatomical investigation of pelvic and head & neck regions. Offered Yearly.

#### MD1 5101 Clinical Skills 1A Cr. 1

This course is designed to allow students to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service-learning activities. Students will be introduced to advanced skills in patient interviewing and physical examination emphasizing a patient-centered, empathic and compassionate approach, incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Students will be introduced to basic clinical reasoning concepts. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

#### MD1 5102 Clinical Skills 1B Cr. 1

In this course, learners will continue to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service-learning activities. Students will practice advanced skills in patient interviewing and physical examination emphasizing a patient-centered, empathic and compassionate approach, incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Students will practice basic clinical reasoning skills. Offered Yearly. Prerequisite: MD1 5101

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

#### MD1 5103 Clinical Skills 1C Cr. 1

In this course, learners will demonstrate mastery of foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service-learning activities. Students will continue to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered, empathic and compassionate approach, incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Students will refine basic clinical reasoning skills. Offered Yearly. Prerequisite: MD1 5102

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

# MD1 5201 Population, Patient, Physician and Professionalism (P4) 1A Cr.

Provides the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Using a variety of methods, including clinical/community engagement, students engage in activities demonstrating the interconnectedness of the population, patient, and physician. P4 also emphasizes the need for students to develop their professional identity by behaving professionally and demonstrating respect to their colleagues, faculty, and patients and their families. By exploring sensitive topics and communicating with a diverse population, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Students will become effective team members, learn evidence-based theories to reduce healthcare disparities, recognize their own professional identity formation, and develop self-directed learning habits. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

# MD1 5202 Population, Patient, Physician and Professionalism (P4) 1B Cr.

1

Provides the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Using a variety of methods, including clinical/community engagement, students engage in activities demonstrating the interconnectedness of the population, patient, and physician. P4 also emphasizes the need for students to develop their professional identity by behaving professionally and demonstrating respect to their colleagues, faculty, and patients and their families. By exploring sensitive topics and communicating with a diverse population, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Students will become effective team members, learn evidence-based theories to reduce healthcare disparities, recognize their own professional identity formation, and develop self-directed learning habits. Offered Yearly.

Prerequisite: MD1 5201

Restriction(s): Enrollment limited to students with a class of Med First Year

# MD1 5203 Population, Patient, Physician and Professionalism (P4) 1C Cr. 1

Provides the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Using a variety of methods, including clinical/community engagement, students engage in activities demonstrating the interconnectedness of the population, patient, and physician. P4 also emphasizes the need for students to develop their professional identity by behaving professionally and demonstrating respect to their colleagues, faculty, and patients and their families. By exploring sensitive topics and communicating with a diverse population, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Students will become effective team members, learn evidence-based theories to reduce healthcare disparities, recognize their own professional identity formation, and develop self-directed learning habits. Offered Yearly.

Prerequisite: MD2 5202

Restriction(s): Enrollment limited to students with a class of Med First Year

#### MD1 5301 Service Learning 1-A Cr. 0

Provides students the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Through large group sessions, small group sessions, online modules, self-directed reflective assignments, and clinical and community engagement, students will actively participate in activities demonstrating the interconnectedness of the population, patient, and physician. The course also emphasizes the need for students to quickly develop their professional identity as a physician-in-training by behaving professionally and demonstrating respect to their colleagues, faculty, patients and their families. By engaging early with patients and potential patients, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Offered Yearly.

#### MD1 5302 Service Learning 1-B Cr. 0

Provides students the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Through large group sessions, small group sessions, online modules, self-directed reflective assignments, and clinical and community engagement, students will actively participate in activities demonstrating the interconnectedness of the population, patient, and physician. The course also emphasizes the need for students to quickly develop their professional identity as a physician-in-training by behaving professionally and demonstrating respect to their colleagues, faculty, patients and their families. By engaging early with patients and potential patients, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Offered Yearly.

### MD1 5303 Service Learning 1-C Cr. 0

Provides students the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Through large group sessions, small group sessions, online modules, self-directed reflective assignments, and clinical and community engagement, students will actively participate in activities demonstrating the interconnectedness of the population, patient, and physician. The course also emphasizes the need for students to quickly develop their professional identity as a physician-in-training by behaving professionally and demonstrating respect to their colleagues, faculty, patients and their families. By engaging early with patients and potential patients, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care. Offered Yearly.

### MD1 5401 Wayne Trained and Coaching Professional Development Cr. 1

Wayne Trained and Coaching Professional Development is a 1 credit course at Wayne State University School of Medicine designed to foster personal and professional growth through the Master Adaptive Learner (MAL) framework. Students engage in coaching, mentoring, and advising across areas like health, wellness, career planning, and academic support. Anchored by revitalized Warrior MD Houses, the course creates vibrant learning communities and consistent touchpoints, including "Wayne Trained" clinical scenarios that enhance reasoning and professionalism. The course emphasizes metacognitive skills, adaptability, and WSUSOM's 16 Principles of Professional Identity. Offered Yearly.

#### MD1 5511 Community Engagement Elective 1A Cr. 2

Provides students with an opportunity to explore and understand the experience of under-served patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

# MD1 5512 Community Engagement Elective 1B Cr. 3

Provides students with an opportunity to explore and understand the experience of under-served patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.

Prerequisite: MD1 5511

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

#### MD1 5521 Medical Education Research Elective 1A Cr. 2

Society places a large emphasis on education yet understanding the basic science of teaching and learning is neglected. That is, research exploring the effectiveness of curriculum, teaching, and learning strategies on student outcomes has not been a priority in medical education. To train students and residents for the practice of medicine in the 21st century, we must continue to be innovative in our curriculum and teaching, stay current with new technology, and be able to demonstrate the effectiveness of our programs through the practice of medical education research. To address this issue the Wayne State University School of Medicine has developed a medical education research course. The purpose of this course is to introduce undergraduate medical students to the field of medical education research and to have them participate in medical education research activities. Offered Yearly. Restriction(s): Enrollment limited to students with a class of Med First Year.

#### MD1 5522 Medical Education Research Elective 1B Cr. 3

Society places a large emphasis on education yet understanding the basic science of teaching and learning is neglected. That is, research exploring the effectiveness of curriculum, teaching, and learning strategies on student outcomes has not been a priority in medical education. To train students and residents for the practice of medicine in the 21st century, we must continue to be innovative in our curriculum and teaching, stay current with new technology, and be able to demonstrate the effectiveness of our programs through the practice of medical education research. To address this issue the Wayne State University School of Medicine has developed a medical education research course. The purpose of this course is to introduce undergraduate medical students to the field of medical education research and to have them participate in medical education research activities. Offered Yearly. Prerequisite: MD1 5521

Restriction(s): Enrollment limited to students with a class of Med First Year

# MD1 5531 Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 1A Cr. 2

The MPAC program elective provides students with an opportunity to learn, practice and apply knowledge and skills as physician healthcare leaders and advocates. Students will learn how to engage in advocacy to improve healthcare for patients and communities and to improve the health systems where they deliver care. Working with organized medicine, students will author solutions and meet with governmental leaders to present and advocate for reforms and improvements to the delivery of care. Students will learn about the use of media as a tool for advocacy and learn about philanthropy as it relates to healthcare. The program also serves as a primer on leadership development topics, by emphasizing the need for students to develop their professional identity by dressing professionally, arriving on time, and behaving professionally and demonstrating respect to their patients, peers, colleagues, supervisors, and others and by maintaining professional conduct and composure when conflict occur. Offered Yearly.

# MD1 5532 Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 1B Cr. 3

The MPAC elective provides students with an opportunity to learn, practice and apply knowledge and skills as physician healthcare leaders and advocates. Students will learn how to engage in advocacy to improve healthcare for patients and communities and to improve the health systems where they deliver care. Working with organized medicine, students will author solutions and meet with governmental leaders to present and advocate for reforms and improvements to the delivery of care. Students will learn about the use of media as a tool for advocacy and learn about philanthropy as it relates to healthcare. The program also serves as a primer on leadership development topics, by emphasizing the need for students to develop their professional identity by dressing professionally, arriving on time, and behaving professionally and demonstrating respect to their patients, peers, colleagues, supervisors, and others and by maintaining professional conduct and composure when conflict occurs. Offered Yearly.

Prerequisite: MD1 5531

Restriction(s): Enrollment limited to students with a class of Med First

#### MD1 5541 Research Elective 1A Cr. 2

The ability to conduct and understand medical research is a valuable skill for any physician, since it has been the origin of many current treatments and procedures. Medical research goes far beyond the performance of experiments and collection of data. Research also involves the ability to critically read pertinent scientific literature and to develop hypotheses based on that reading. In addition, a researcher must design experiments to test hypotheses, analyze and critically evaluate resultant data, interpret results, and clearly present the findings. This course is designed to facilitate selection of a research mentor and to begin development of skills necessary to perform research. In this course, students will specifically learn to: 1) interact effectively and professionally with potential mentors, 2) critically read, evaluate, and discuss scientific literature at a level appropriate for a beginning research student, and 3) work professionally and efficiently as part of a team. Offered Yearly. Restriction(s): Enrollment limited to students with a class of Med First Year.

### MD1 5542 Research Elective 1B Cr. 3

The ability to conduct and understand medical research is a valuable skill for any physician, since it has been the origin of many current treatments and procedures. Medical research goes far beyond the performance of experiments and collection of data. Research also involves the ability to critically read pertinent scientific literature and to develop hypotheses based on that reading. In addition, a researcher must design experiments to test hypotheses, analyze and critically evaluate resultant data, interpret results, and clearly present the findings. This course is designed to facilitate selection of a research mentor and to begin development of skills necessary to perform research. In this course, students will specifically learn to: 1) interact effectively and professionally with potential mentors, 2) critically read, evaluate, and discuss scientific literature at a level appropriate for a beginning research student, and 3) work professionally and efficiently as part of a team. Offered Yearly. **Prerequisite:** MD1 5541

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

#### MD1 5551 Medical Quality Improvement Elective 1A Cr. 2

Continuous quality improvement, or CQI, is a philosophy that organizations use to reduce waste, increase efficiency, and increase employee and customer satisfaction. It is an ongoing process that evaluates how an organization works and ways to improve its processes. When organizations focus on quality improvement, they can create significant positive change with the workforce, eliminate injuries that save patient lives, and reduce operating costs in hospitals and medical facilities. This course aims to introduce undergraduate medical students to the field of medical quality improvement, patient safety, and organizational leadership. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

### MD1 5552 Medical Quality Improvement Elective 1B Cr. 3

Continuous quality improvement, or CQI, is a philosophy that organizations use to reduce waste, increase efficiency, and increase employee and customer satisfaction. It is an ongoing process that evaluates how an organization works and ways to improve its processes. When organizations focus on quality improvement, they can create significant positive change with the workforce, eliminate injuries that save patient lives, and reduce operating costs in hospitals and medical facilities. This course aims to introduce undergraduate medical students to the field of medical quality improvement, patient safety, and organizational leadership. Offered Yearly.

Prerequisite: MD1 5551

Restriction(s): Enrollment limited to students with a class of Med First Year

#### 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.

# MD1 5911 Business of Medicine Elective 1A: Introduction to the Healthcare Ecosystem Cr. 3

This course creates a setting for 1st year medical students to explore various aspects of the business of medicine to gain insights into how they can affect the future of healthcare. Healthcare expenditures flow across intersections between patients and individuals/institutions that provide healthcare services. The flow of funds and clinical experience is impacted by those that purchase/finance healthcare, offer insurance and handle reimbursement, and those that design, produce, and distribute pharmaceuticals, medical technologies and devices, information systems and analytic services. This complex ecosystem affects access, cost, and quality of care. The quest for improved access and patient outcomes and cost containment is fueling changes across the healthcare landscape. Students will examine these changes and develop a multidisciplinary perspective by learning from individuals and organizations affecting the rate and flow of care, services, information and money in the health system. Offered Yearly.

# MD1 5912 Business of Medicine Elective 1B: Healthcare Ecosystem Explorations Cr. 3

The purpose of this course is to create a setting where 1st year medical students can gain confidence and experience interacting with subject matter experts operating throughout the healthcare ecosystem, and students delve deeper into various dimensions of this ecosystem via student-led panel discussions and team-level activities and discussions. Students explore current and emerging policies and practices in the drive toward improved access and patient outcomes and cost containment. Students further develop a multidisciplinary perspective by learning from the individuals and organizations affecting the rate and flow of care, services, products, information, and money within the healthcare system. In-class activities are augmented with required fieldwork. Offered Yearly. Prerequisite: MD1 5911

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

# Medical Doctor Courses - Second Year (MD2)

#### MD2 6001 Human Disease Foundations I Cr. 10

Human Disease Foundations I launches the MD2 pre-clerkship segment of the MD degree program. This is the first of a 3-part series. This course builds on the normal structure and function of organ systems from Segment 1 to provide students with foundational knowledge of disease processes. The overall goal of the Human Disease Foundations series is to engage second-year medical students in learning the key concepts and foundational principles related to the etiology, pathogenesis, pathology, pathophysiology, clinical manifestations, basic principles of diagnosis, and treatment of disease processes. These courses emphasize foundational knowledge in pathophysiology, microbiology, immunology, genetics, and pharmacology. In Human Disease Foundations-I, we will cover the foundational aspects of the pathological and pathophysiological mechanisms of disease, clinical genetics, immunology, microbiology/infectious disease, and the musculoskeletal, peripheral nervous and integumentary systems. Offered Yearly.

#### MD2 6002 Human Disease Foundations II Cr. 10

Human Disease Foundations II continues the MD2 pre-clerkship segment of the MD degree program. This is the second course of a 3-part series. This course builds on the normal structure and function of these organ systems from Segment 1 to provide students with foundational knowledge of disease processes. The overall goal of the Human Disease Foundations series is to engage second-year medical students in learning the key concepts and foundational principles related to the etiology, pathogenesis, pathology, pathophysiology, clinical manifestations, basic principles of diagnosis, and treatment of disease processes. These courses emphasize foundational knowledge in pathophysiology, microbiology, immunology, genetics, and pharmacology. In Human Disease Foundations-II, we will cover the most important aspects of the pathology and pathophysiology mechanisms of diseases affecting the cardiopulmonary, gastrointestinal, and urinary systems. Offered Yearly.

#### MD2 6003 Human Disease Foundations III Cr. 10

Human Disease Foundations III concludes the MD2 pre-clerkship segment of the 4-year program leading to the MD degree. This is the last course of a 3-part series that provides medical students with foundational knowledge of disease processes, building on organ-based normal structure and function from Segment 1. The goal of Human Disease Foundations-III is to engage students in learning the key concepts and foundational principles related to etiology, pathology, pathophysiology, recognition of clinical presentations, basic principles of diagnosis, and treatment of disease processes which affect the hematologic/lymphatic, endocrine, reproductive and central nervous systems. This course emphasizes foundational knowledge in pathophysiology, microbiology, immunology, genetics, pharmacology, neurology and psychiatry. The knowledge gained will build a strong foundation for future clinical training on the internal medicine, obstetrics and gynecology, neurology, and psychiatry clerkships. Offered Yearly.

#### MD2 6101 Clinical Skills 2A Cr. 1

Designed to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning, and performance of procedures through exploration of pediatrics and general surgery. Students who are competent in these foundational skills will then proceed to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered empathic and compassionate approach incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences and service-learning activities. Offered Yearly.

Prerequisite: MD1 5103

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

#### MD2 6102 Clinical Skills 2B Cr. 1

Designed to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures through exploration of emergency medicine, urology, and internal medicine. Students who are competent in these foundational skills will then proceed to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered empathic and compassionate approach incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences and service-learning activities. Offered Yearly.

Prerequisite: MD2 6101

Restriction(s): Enrollment limited to students with a class of Med Second

### MD2 6103 Clinical Skills 2C Cr. 2

Designed to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service-learning activities. Students who are competent in these foundational skills will then proceed to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered empathic and compassionate approach incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Offered Yearly.

Prerequisite: MD2 6102

# MD2 6201 Population, Patient, Physician and Professionalism (P4) 2-A

P4 Segment 2 is a second year medical student course designed to guide students to: provide patient-centered and culturally responsive care, to become effective team members, to learn evidence based theories that reduce healthcare disparities, to recognize their own professional development, and to foster self-directed learning through use of flipped classroom models, case studies, and real world interactions in community projects that utilize an inter-professional approach to caring for specialized populations. Offered Yearly.

# MD2 6202 Population, Patient, Physician and Professionalism (P4) 2-B Cr 1

P4 Segment 2 is a second year medical student course designed to guide students to: provide patient-centered and culturally responsive care, to become effective team members, to learn evidence based theories that reduce healthcare disparities, to recognize their own professional identity formation, and to foster self-directed learning through use of flipped classroom models, case studies, and real world interactions in community projects that utilize an inter-professional approach to caring for specialized populations. Offered Yearly.

# MD2 6203 Population, Patient, Physician and Professionalism (P4) 2-C Cr. 1

P4 Segment 2 is a second year medical student course designed to guide students to: provide patient-centered and culturally responsive care, to become effective team members, to learn evidence based theories that reduce healthcare disparities, to recognize their own professional development, and to foster self-directed learning through use of flipped classroom models, case studies, and real world interactions in community projects that utilize an inter-professional approach to caring for specialized populations. Offered Yearly.

#### MD2 6301 Service Learning 2-A Cr. 0

Segment 2 Service Learning is a second year medical school course designed to guide students to: provide patient-centered and culturally responsive care, to become effective team members, to learn evidence based theories that reduce healthcare disparities, to recognize their own professional identity formation, and to foster self-directed learning through use of flipped classroom models, case studies, and real world interactions in community projects that utilize an inter-professional approach to caring for specialized populations. Offered Yearly.

#### MD2 6302 Service Learning 2-B Cr. 0

Builds on concepts learned in the first segment with additional emphasis on equipping trainees to provide patient-centered and culturally responsive care to distinct patient populations living in Detroit. Topics of discussion include nutrition-related chronic disease, veteran health, sexual health, homeless health, school-based health, and healthcare provided to those with disabilities. Through large group sessions, small group sessions, online modules, and service-learning activities, trainees will become effective inter-professional team members, learn how to reduce health care disparities, improve professional development, and foster self-directed learning skills. Offered Yearly.

# MD2 6303 Service Learning 2-C Cr. 0

Builds on concepts learned in the first segment with additional emphasis on equipping trainees to provide patient-centered and culturally responsive care to distinct patient populations living in Detroit. Topics of discussion include nutrition-related chronic disease, veteran health, sexual health, homeless health, school-based health, and healthcare provided to those with disabilities. Through large group sessions, small group sessions, online modules, and service-learning activities, trainees will become effective inter-professional team members, learn how to reduce health care disparities, improve professional development, and foster self-directed learning skills. Offered Yearly.

#### MD2 6401 Clinical Experiential Course 2-A Cr. 1

The course is focused on ambulatory clinical exposure with the overall objective of developing students as medical professionals, patient advocates, and skilled clinicians. Offered Yearly.

#### MD2 6402 Clinical Experiential Course 2-B Cr. 1

The course is focused on ambulatory clinical exposure with the overall objective of developing students as medical professionals, patient advocates, and skilled clinicians. Offered Yearly.

#### MD2 6403 Clinical Experiential Course 2-C Cr. 1

The course is focused on ambulatory clinical exposure with the overall objective of developing students as medical professionals, patient advocates, and skilled clinicians. Offered Yearly.

#### MD2 6511 Community Engagement Elective 2A Cr. 2

Provides students with an opportunity to explore and understand the experience of under-served patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.

Prerequisite: MD1 5512

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

#### MD2 6512 Community Engagement Elective 2B Cr. 3

Provides students with an opportunity to explore and understand the experience of under-served patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.

Prerequisite: MD2 6511

Restriction(s): Enrollment limited to students with a class of Med Second

# MD2 6521 Medical Education Research Elective 2A Cr. 2

Society places a large emphasis on education yet understanding the basic science of teaching and learning is neglected. That is, research exploring the effectiveness of curriculum, teaching, and learning strategies on student outcomes, has not been a priority in medical education. To train students and residents for the practice of medicine in the 21st century, we must continue to be innovative in our curriculum and teaching, stay current with new technology and be able to demonstrate the effectiveness of our programs through the practice of medical education research. The purpose of this course is to leverage the knowledge and skills that students acquired in MD1 Medical Education Research and apply them to medical education research projects and topics. Offered Yearly.

Prerequisite: MD1 5522

#### MD2 6522 Medical Education Research Elective 2B Cr. 3

Society places a large emphasis on education yet understanding the basic science of teaching and learning is neglected. That is, research exploring the effectiveness of curriculum, teaching, and learning strategies on student outcomes, has not been a priority in medical education. To train students and residents for the practice of medicine in the 21st century, we must continue to be innovative in our curriculum and teaching, stay current with new technology and be able to demonstrate the effectiveness of our programs through the practice of medical education research. The purpose of this course is to leverage the knowledge and skills that students acquired in the Medical Education Research electives completed so far and apply them to medical education research projects and topics. Offered Yearly.

Prerequisite: MD2 6521

Restriction(s): Enrollment limited to students with a class of Med Second Year

# MD2 6531 Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 2A Cr. 2

Section 1 was focused on primary content to ensure students have a basic understanding of the health policy and political process. Section 2 of the program will focus on applying that knowledge base to a real advocacy project. Upon completion of section 2, students will have the necessary skills to advocate on health policies issues on their own or in collaboration with their colleagues. The goal of the MPAC program is to support the leadership and advocacy development of medical students to better prepare them to become physician leaders for their patients, colleagues, and community. Offered Yearly.

Prerequisite: MD2 6532

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

# MD2 6532 Leadership and External Affairs Development (LEAD)/Medical Political Action (MPAC) Elective 2B Cr. 3

Section 1 was focused on primary content to ensure students have a basic understanding of the health policy and political process. Section 2 of the program will focus on applying that knowledge base to a real advocacy project. Upon completion of section 2, students will have the necessary skills to advocate on health policies issues on their own or in collaboration with their colleagues. The goal of the MPAC program is to support the leadership and advocacy development of medical students to better prepare them to become physician leaders for their patients, colleagues, and community. Offered Yearly.

Prerequisite: MD2 6531

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

#### MD2 6541 Research Elective 2A Cr. 2

In the preceding M1 Research Electives, students learned to select and interact with a mentor, to critically read, evaluate, and discuss scientific literature at a beginner's level, to write a scientific mini-review, and to write a research proposal. This course is designed to further develop the skills learned in the M1 electives and to enhance a student's hands-on research skills by providing opportunities to perform research under the guidance of an individual mentor. In this course, students will specifically learn to: 1) apply their knowledge of research skills to perform scientific research in a laboratory under the guidance of a mentor, 2) critically read, evaluate, and discuss scientific literature at a level appropriate for an advanced research student, 3) interact effectively and professionally with a chosen mentor, and 4) work professionally and efficiently as part of a team of peers and other researchers. Offered Yearly.

Prerequisite: MD1 5542

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

#### MD2 6542 Research Elective 2B Cr. 3

In the preceding M2 Research Elective A course, students further developed the research skills they had learned in the M1 electives and enhanced their hands-on research skills by performing research under the guidance of their mentor. This course is designed to enhance and sharpen the skills learned in the previous research electives. Here, students will specifically learn to: 1) apply their knowledge of research skills to perform scientific research in a laboratory under the guidance of a mentor, 2) apply their knowledge of research and presentation skills to prepare and professionally present a research presentation, 3) critically read, evaluate, and discuss scientific literature at a level appropriate for an advanced research student, 4) critically listen to and evaluate a scientific presentation, 5) interact effectively and professionally with a chosen mentor, and 6) work professionally and efficiently as part of a team of peers and other researchers. Offered Yearly.

Prerequisite: MD2 6541

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

# MD2 6561 Directed Teaching in a Medical Education Environment Elective 2A Cr. 1

Directed teaching in a medical school setting for which advanced students are preparing underclass peers for success in the medical education program. Includes near-peer tutoring and/or coaching opportunities. Seminars in which professional learning opportunities centers on teaching methods, industry best practices, and discussion of educational issues in various fields are explored. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second Year.

# MD2 6562 Directed Teaching in a Medical Education Environment Elective 2B Cr. 1

Directed teaching in a medical school setting for which advanced students are preparing underclass peers for success in the medical education program. Includes near-peer tutoring and/or coaching opportunities. Seminars in which professional learning opportunities centers on teaching methods, industry best practices, and discussion of educational issues in various fields are explored. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second Year.

# MD2 6563 Directed Teaching in a Medical Education Environment Elective 2C Cr. 1

Directed teaching in a medical school setting for which advanced students are preparing underclass peers for success in the medical education program. Includes near-peer tutoring and/or coaching opportunities. Seminars in which professional learning opportunities centers on teaching methods, industry best practices, and discussion of educational issues in various fields are explored. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second Year

#### MD2 6571 Medical Quality Improvement Elective 2A Cr. 2

Quality improvement (QI) is a systematic, formal approach to the analysis of practice performance and efforts to improve performance. When organizations focus on quality improvement, they can create significant positive change. QI within medical institutions will help the organizations save patient lives along with reducing the cost of hospital and medical offices' daily operations. A focus on quality improvement in a medical setting can also better prepare a future physician to handle a large-scale emergency or medical event, as illustrated during the COVID-19 pandemic. In this course, students will gain an understanding of the origin of quality improvement methodologies and the impact it has on health care and patient safety. Offered Yearly.

#### MD2 6572 Medical Quality Improvement Elective 2B Cr. 3

Quality improvement (QI) is a systematic, formal approach to the analysis of practice performance and efforts to improve performance. When organizations focus on quality improvement, they can create significant positive change. QI within medical institutions will help the organizations save patient lives along with reducing the cost of hospital and medical offices' daily operations. A focus on quality improvement in a medical setting can also better prepare a future physician to handle a large-scale emergency or medical event, as illustrated during the COVID-19 pandemic. In this course, students will gain an understanding of the origin of quality improvement methodologies and the impact it has on health care and patient safety. Offered Yearly.

Prerequisite: MD1 5551 and MD1 5552 and MD2 6571

# 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.

#### Repeatable for 12 Credits

Year.

### MD2 6601 Step 1 Preparation Course 2A Cr. 1

All students will be provided with a structured Step 1 Prep Course to help facilitate and support their efforts during M2. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second Year

#### MD2 6602 Step 1 Preparation Course 2B Cr. 1

All students will be provided with a structured Step 1 Prep Course to help facilitate and support their efforts during M2. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second

#### MD2 6603 Step 1 Preparation Course 2C Cr. 1

All students will be provided with a structured Step 1 Prep Course to help facilitate and support their efforts during M2. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Second Year.

#### MD2 6605 Clinical Synthesis and Integration Course Cr. 3

This Clinical Synthesis and Integration (CSI) course builds on the normal and abnormal structure and function of organ systems from Human Body Foundations & Human Disease Foundation to provide students with the integrated foundational knowledge of Biomedical science, Clinical science and Health System Science. The course aims to engage second-year medical students in synthesizing & integrating the key concepts and foundational principles related to the etiology, pathogenesis, morphology, critical investigations, interpreting lab values, and clinical manifestations. Learners will also continue to develop and demonstrate basic clinical skills in history-taking, patient examination, note writing, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service-learning activities. Students will practice advanced skills in patient interviewing and physical examination emphasizing a patient-centered, empathic, and compassionate approach. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med Second Year.

#### MD2 6610 Step-I Enhancement Course Cr. 2

As the first of what will be a lifetime of licensure exams, preparing for the USMLE Step 1 often creates a great deal of stress. While some amount of stress is a natural part of test preparation, it does not have to be debilitating. The Wayne State School of Medicine serves to mitigate some stress by providing students with resources and skills to help them optimize their performance on Step 1. This course provides students with a structured Step 1 Prep Course program to facilitate and support their efforts during the dedicated study period. Central to students' success on Step 1 is a clear understanding of student's strengths and deficiencies, which serve to inform the development of a study plan. Offered Yearly.

### MD2 6800 Preparation for Clerkships Cr. 5

This course is required for all students who plan to begin clerkships in April of each year. It is designed to prepare students for the transition from the pre-clerkship classroom to the clerkship experience. Through lectures, small group sessions, and skills-building workshops, students will learn about their expected roles and responsibilities as members of the health care team, particularly an inpatient clinical team, and practice skills such as preparing oral and written presentations for inpatient rounds and performing basic procedures. During this course, students will also complete their mandatory training in electronic health records (EHR), infection control, basic cardiovascular life support (BLS), and HIPAA certification. Students will complete online curricula in advanced patient communication skills, professionalism and ethics. Effective use of the electronic health record as the platform for medical care will be a key component. Offered Yearly.

# MD2 6911 Business of Medicine Elective 2A: Innovation and Entrepreneurship: Foundations Cr. 3

Students learn about the fundamentals and types of innovation and entrepreneurship in healthcare settings. Key trends shaping the pace and direction of innovation are examined as students explore the challenges and opportunities facing physician entrepreneurs attempting to design and introduce innovative solutions which are desirable, feasible and viable within the healthcare ecosystem. The upward pressure on costs associated with ongoing changes in payment models and in the operations of healthcare systems, coupled with search for improved outcomes and the abatement of health disparities underscores the importance of relevant, effective, and cost-efficient innovation efforts. The costs associated with translational and clinical research and development informed by patients, physicians and service providers engaged at the point of care promotes progress along commercialization pathways and can yield higher rates of success. In-class activities are augmented with required fieldwork. Offered Yearly.

Prerequisite: MD1 5912

Restriction(s): Enrollment limited to students with a class of Med Second

# MD2 6912 Business of Medicine Elective 2B: Innovation and Entrepreneurship: Following the Roadmap Cr. 3

Students continue to explore the challenges and opportunities facing physician entrepreneurs while taking concrete steps to design and develop an innovative solution by testing and validating the roadmap they developed in the Business of Medicine – Innovation and Entrepreneurship Foundations course. Students work in small teams with the assistance of a select multidisciplinary faculty group drawn from the WSU School of Medicine and the Mike Ilitch School of Business as well as other schools and colleges and the assistance of external coaches and mentors. Inclass activities are augmented with required fieldwork. Offered Yearly.

Prerequisite: MD2 6911

# Medical Doctor Courses - Third Year (MD3)

#### 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.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

#### MD3 7200 Internal Medicine Clerkship Cr. 12

Practical experience in recognition, evaluation, diagnosis, and management of hospitalized adult patients with acute non-surgical illnesses. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

#### MD3 7300 Pediatrics Clerkship Cr. 6

Practical experience in recognition, evaluation, diagnosis, and management of pediatric patients in in-patient and ambulatory care settings. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

#### MD3 7400 Surgery Clerkship Cr. 12

Practical experience in recognition, evaluation, diagnosis, and management of patients in general surgery or surgical sub-specialties. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

# 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.

Restriction(s): Enrollment limited to students with a class of Med Third Year

#### MD3 7600 Obstetrics and Gynecology Clerkship Cr. 6

Practical experience in recognizing, evaluating, diagnosing, and managing the health care of women in a variety of inpatient and outpatient settings. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

# 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.

**Restriction(s):** Enrollment limited to students with a class of Med Third Year.

#### 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.

# MD3 7950 Clinical Reasoning, Integration, Skills and Practice (CRISP) Cr.

1

This is a yearlong longitudinal course that gives the WSU Segment 3 students advanced skills in areas common to all specialties and is an integral part of the 4-year clinical excellence program as part of the Highways to Excellence© curriculum. Including sessions on clinical reasoning, interprofessional health care, continuation of the ultrasound curriculum in the clinical setting, leadership, career planning, wellness and other topics that help unify the core curriculum. Offered Every Term. Restriction(s): Enrollment limited to students with a class of Med Third Year.

**Repeatable for 4 Credits** 

# Medical Doctor Courses - Fourth Year (MD4)

# MD4 8015 Senior Clinical Reasoning, Integration, Skills and Practice (CRISP) Cr. 1

This is a year-long longitudinal course that gives the WSU senior student advanced skills in areas common to all specialties and completes the 4-year clinical excellence program as part of the Highways to Excellence© curriculum. It will encompass a number of areas that are best taught to the experienced student. There is a mixture of online courses and assignments, in person workshops and asynchronous content. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 4 Credits

#### 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 Fourth Year.

#### MD4 8025 Curriculum Development Cr. 6

This is a directed student course in which students engage in individualized projects that are designed to reflect their self-directed learning skills that they have developed while at Wayne State University School of Medicine. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

# 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

#### 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 specific clientele. Offered Every Term.

**Restriction(s)**: Enrollment limited to students with a class of Med Fourth Year.

# 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.

#### 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.

#### 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.

#### 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 Fourth Year.

#### MD4 8050 Anesthesiology Sub-Internship Cr. 3,6

Practice of anesthesia 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 8060 Pain Management Sub-Internship Cr. 3,6

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

# Repeatable for 18 Credits

# MD4 8070 Pediatric Anesthesiology Sub-Internship Cr. 3,6

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.

# Repeatable for 18 Credits

# MD4 8090 Military Officer Training Cr. 6

The course will develop critical thinking in decision making processes that incorporate medical decisions within both a battlefield scenario as well as in a hospital setting. This course will emphasize how an officer fits within the TEAMSTEP concept of medical management which enforces medical excellence, team building within a hospital. This course is only available to students in the HPSP program. Offered Yearly.

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### 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 Fourth Year.

# MD4 8110 Healthcare: Systems, Quality, Safety and Social Determinants Cr. 6

The goal of every health care provider and organization is to provide safe, timely, equitable, effective, efficient, and patient-centered care. In order to do this, students need foundational knowledge and skills related to safety, quality, leadership and the business of medicine and Students electing this course will join the WSUSOM chapter of the Institute of Healthcare Improvement. Students will also complete a learning game and seven online learning modules to better understand how to provide care to underserved and disadvantaged patients. Offered Every Term. Restriction(s): Enrollment limited to students with a class of Med Fourth Year.

#### MD4 8115 Special Topics: Interprofessional Education Cr. 2

This interprofessional course is for health professional student learners in the areas of advanced practice. The course allows health professional students to learn about, from and with each other, how each discipline contributes to the healthcare team, the importance of effective communication, the role of team collaboration and preparing health care professionals for collaborative practice with a focus on clinical decision making in interdisciplinary teams. Offered Intermittently.

**Restriction(s):** Enrollment is limited to Graduate, Medical or Professional level students.

**Equivalent:** NUR 7115, PAS 7115, PPR 7115, SW 7115

### MD4 8120 Dermatology Sub-Internship 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.

#### Repeatable for 18 Credits

#### MD4 8130 Dermatology Research Cr. 3,6

Knowledge and experience in dermatology research. Offered Every Term. **Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

# 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.

### MD4 8145 ER Ultrasound Sub-Internship Cr. 3,6

Introduce students to point-of-care ultrasound (POCUS) examinations as well as more advanced skills and applications, with a focus on indications for scanning, image acquisition and image interpretation. Offered Every

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

# Repeatable for 18 Credits

#### 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 Fourth Year.

## MD4 8160 Emergency Medicine Core Clerkship Cr. 7

Evaluation, stabilization, and treatment of a variety of patients presenting to the ER with urgent and emergent illness and trauma. Offered Every

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### 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.

#### MD4 8166 Student Run Free Clinic - Underserved Populations Cr. 6

Students are involved in supervision of day-to-day operations of Student Run Free Clinic. This includes research, mentorship, patient support and advocacy, and non-clinic based learning. Offered Every Term.

Restriction(s): Enrollment limited to students with a class of Med Fourth Year

#### 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 Fourth Year.

### 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 Fourth Year.

#### 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 Fourth Year.

#### MD4 8173 Patient Centered Medical Home and Quality Curriculum Cr. 6

The Patient Centered Medical Home and Quality rotation exposes students to the concepts of the patient centered medical home and quality metrics as they pertain to current practices in family medicine. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### 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 Intermittently.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### MD4 8176 Public Health and Clinical Medicine Cr. 6

Students will complete a set of activities that introduce students to various aspects of public health and its role in clinical patient care. Offered Intermittently.

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### MD4 8210 Acting Internship: Family Medicine 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

#### 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 Fourth Year.

#### MD4 8230 Maternal and Child Health Sub-Internship Cr. 3,6

Gaining experience in an aggressive family medicine OB service. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

Repeatable for 18 Credits

#### MD4 8250 Sports Medicine Sub-Internship Cr. 3,6

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

#### Repeatable for 18 Credits

#### MD4 8255 International Elective Cr. 6

Offered Intermittently.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### MD4 8258 International Away Cr. 6

Offered Intermittently.

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### MD4 8260 Allergy and Clinical Immunology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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.

#### 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.

# MD4 8264 Independent Study in Medical Education Cr. 3,6

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.

### 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.

#### MD4 8270 Ambulatory Med Cr. 3,6

There is an increased role of ambulatory medicine in all specialties. By selecting this course, the student will gain valuable experience at an advanced level in an ambulatory setting based on the specialty of their choosing. This course will expose the student to the patient's needs as they differ in the outpatient environment, giving the student a more complete picture of longitudinal patient care outside hospitalization. Students who take this course will gain an appreciation and thorough expert understanding of how medical care is delivered in the clinic, while simultaneously exposing themselves to their planned specialty in the setting in which they will most likely be responsible for patient care after graduation. Students will select their top three sites/specialties in which to further develop their skills and be assigned a spot at a Michigan Healthcare Professionals (MHP) location based upon those selections. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### MD4 8280 Cardiology Sub-Internship 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 Fourth Year.

### Repeatable for 18 Credits

#### 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.

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### MD4 8290 Cardiology Consultation Sub-Internship 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 Fourth

#### Repeatable for 18 Credits

# MD4 8310 Coronary Care Unit Sub-Internship Cr. 3,6

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 Fourth Year.

# Repeatable for 18 Credits

# MD4 8320 Critical Care Medicine Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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 Fourth Year.

#### 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

#### 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 Fourth

#### Repeatable for 18 Credits

# MD4 8365 Scholarly Writing for Critical Appraisal of Clinical Research Cr. 6

Peer review for clinical research practice. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

# MD4 8366 Scholarly Editing for Critical Appraisal of Clinical Research Cr. 6

Scholarship is defined as creating new knowledge. Scholarship in an academic environment requires peer review. Editors work with their assigned peer reviewers; both have shared responsibilities: ensure scientific validity and suggest ways to improve the manuscript. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

### MD4 8370 Gastroenterology Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

### 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.

# MD4 8390 Internal Medicine Inpatient Sub-Internship 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.

#### Repeatable for 18 Credits

#### 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 Fourth Year

#### 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.

#### 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.

#### MD4 8420 Geriatric Medicine Sub-Internship Cr. 3,6

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.

# Repeatable for 18 Credits

#### MD4 8430 Hematology Sub-Internship 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

#### Repeatable for 18 Credits

#### MD4 8440 HIV/AIDS Sub-Internship Cr. 3,6

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.

#### Repeatable for 18 Credits

#### MD4 8450 Infectious Disease Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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.

### MD4 8470 Acting Internship: Internal Medicine 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.

#### MD4 8480 Medicine/Pediatrics Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

# MD4 8490 Nephrology Sub-Internship Cr. 3,6

Experience in diagnosing and managing patients with acute and chronic nephrologic problems. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

#### MD4 8510 Oncology: Medical Sub-Internship 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

#### Repeatable for 18 Credits

# 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 Fourth Year.

#### 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.

#### MD4 8540 Otolaryngology Sub-Internship 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 Fourth

#### Repeatable for 18 Credits

# MD4 8550 Otolaryngology Medical and Surgical: Head and Neck Cr. 3,6

Additional training in otolaryngology head and neck surgery. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

### 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.

#### MD4 8570 Palliative Medicine Sub-Internship 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.

#### Repeatable for 18 Credits

# 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.

### MD4 8590 Pulmonary Medicine Sub-Internship 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 Fourth Year.

## Repeatable for 18 Credits

#### 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.

### MD4 8610 Pulmonary Consultation Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

# MD4 8620 Rheumatology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 8630 Sleep Disorders Sub-Internship Cr. 3,6

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.

#### Repeatable for 18 Credits

#### 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 Fourth

#### MD4 8650 Neurology Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

#### MD4 8660 Neurology Consult Sub-Internship Cr. 3,6

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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 8690 Movement Disorders Sub-Internship Cr. 3,6

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

#### Repeatable for 18 Credits

#### 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.

#### MD4 8710 Neurologic Sleep Disorders Sub-Internship Cr. 3,6

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.

# Repeatable for 18 Credits

# MD4 8730 Neurology Pediatrics Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 8750 Neurosurgery Sub-Internship 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

#### Repeatable for 18 Credits

# 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 Fourth Year.

### MD4 8780 Gynecology Sub-Internship 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 Fourth Year

### Repeatable for 18 Credits

#### MD4 8781 Family Planning and Abortion Sub-Internship Cr. 3,6

Students will learn the principles and counseling techniques for contraceptive management and abortion. Offered Every Term.

Restriction(s): Enrollment limited to students with a class of Med Fourth

#### Repeatable for 18 Credits

### MD4 8790 Gynecologic Oncology Sub-Internship Cr. 3,6

Evaluation and treatment of patients presenting with a range of gynecologic malignancies. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

### Repeatable for 18 Credits

### MD4 8800 Obstetrics Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 8810 Obstetrics/Gynecology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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

# MD4 8830 Maternal Fetal Medicine Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

# 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 Fourth Year

#### MD4 8860 Reproductive Endocrine and Infertility Sub-Internship Cr. 3,6

Diagnosis and treatment of couples with infertility and reproductive endocrine disorders. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

# MD4 8890 Ophthalmology Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

# MD4 8900 Ophthalmic Research Cr. 3,6

The research process; participation in ophthalmic research. Offered Every

#### MD4 8910 Orthopedic Surgery Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

#### 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 Fourth Year.

#### 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 Fourth Year.

## MD4 8940 Pathology Sub-Internship 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 Fourth

#### Repeatable for 18 Credits

# MD4 8950 Anatomic Pathology Sub-Internship 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 Fourth Year

# Repeatable for 18 Credits

### 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 Fourth Year.

#### 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.

#### MD4 8990 Pediatrics Sub-Internship 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 Fourth

#### Repeatable for 18 Credits

# 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.

#### MD4 8992 Pediatric Pulmonary Sub-Internship Cr. 3,6

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.

#### Repeatable for 18 Credits

#### MD4 9000 Adolescent Pediatrics Sub-Internship Cr. 3,6

Interviewing and physical examination of 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.

#### Repeatable for 18 Credits

#### MD4 9010 Allergy, Immunology, and Rheumatology Sub-Internship Cr. 3,6

Day-to-day care of pediatric patients with common allergic, immunologic and rheumatologic diseases. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9045 Pediatric Community Partnership Cr. 6

Students will explore the intricate dynamics of social justice and systemic racism in relation to food insecurity. Students will delve into the intersectionality of food insecurity and early childhood development and education, while also critically assessing the effects of current interventions and engaging with local communities to craft innovative solutions that address these pressing issues. Offered Every Term.

Restriction(s): Enrollment limited to students with a class of Med Fourth Year.

# MD4 9050 Pediatric Genetics Sub-Internship 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.

#### Repeatable for 18 Credits

#### 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

#### MD4 9070 Neonatology Sub-Internship 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 Fourth Year.

### Repeatable for 18 Credits

# MD4 9080 Pediatric Cardiology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9090 Pediatric Ear, Nose and Throat Sub-Internship Cr. 3,6

Entire scope of pediatric otolaryngology. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9100 Pediatric Emergency Medicine Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 9110 Pediatric Endocrinology and Diabetes Sub-Internship 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 Fourth Year.

### Repeatable for 18 Credits

# MD4 9120 Pediatric Gastroenterology, Hepatology, and Nutrition Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9130 Pediatric Hematology/Oncology Sub-Internship Cr. 3,6

Basic skills to conduct an H & P and diagnose and treat children with hematologic and oncologic problems. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9140 Pediatric Infectious Disease Sub-Internship Cr. 3,6

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.

#### Repeatable for 18 Credits

#### MD4 9150 Pediatric Intensive Care Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

# MD4 9160 Pediatric Nephrology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

# MD4 9180 Pediatric Pathology: Autopsy and Surgical Sub-Internship Cr.

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 Fourth Year.

#### Repeatable for 18 Credits

# MD4 9190 Pediatric Plastic Surgery/Craniofacial Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

## MD4 9200 Pediatric PMR Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 9210 Acting Internship: Pediatric 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

### MD4 9230 Physical Medicine and Rehabilitation Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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 9261 Emergent and Consult Liaison Psychiatry Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

#### MD4 9262 Emergency Psychiatry Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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 Fourth Year.

# 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.

#### 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 Fourth

#### MD4 9267 Brain Imaging Psychiatry Research Cr. 3,6

Students will participate in research projects and learn the clinical components associated with neuropsychiatric research. Offered Every Term.

#### MD4 9270 Child and Adolescent Psychiatry Sub-Internship 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.

#### Repeatable for 18 Credits

#### MD4 9290 Psychiatric Consultation Sub-Internship 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.

#### Repeatable for 18 Credits

#### MD4 9300 Psychiatry: Geriatrics Sub-Internship 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.

#### Repeatable for 18 Credits

#### 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

#### 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

#### MD4 9345 Psychiatric Care of Veterans Sub-Internship Cr. 3,6

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

### Repeatable for 18 Credits

#### MD4 9350 General Diagnostic Radiology Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 9360 Intervention Radiology Sub-Internship 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 Fourth Year.

### Repeatable for 18 Credits

# MD4 9380 Radiation Oncology Sub-Internship 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 Fourth Year.

# Repeatable for 18 Credits

#### MD4 9390 Surgery Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

#### MD4 9392 Residency Preparation - Surgical 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.

#### MD4 9393 Breast Surgery Sub-Internship Cr. 3,6

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

#### Repeatable for 18 Credits

#### MD4 9400 Acute Burn Care Sub-Internship Cr. 3,6

Physiologic principles and clinical management of burn victims. Offered Every Term.

Restriction(s): Enrollment limited to students with a class of Med Fourth Year

#### Repeatable for 18 Credits

# MD4 9410 Cardiovascular Surgery Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9440 Pediatric Surgery Sub-Internship 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 Fourth Year

#### Repeatable for 18 Credits

# MD4 9470 Plastic and Reconstructive Surgery Sub-Internship 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.

#### Repeatable for 18 Credits

#### MD4 9480 Surgical Intensive Care Unit Sub-Internship 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

#### Repeatable for 18 Credits

# MD4 9500 Transplant Surgery Sub-Internship Cr. 3,6

Basic surgical principles and pathophysiology, diagnosis and management of a variety of transplant surgical conditions. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9510 Acute Care Surgery Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9520 Vascular Surgery Sub-Internship 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

#### Repeatable for 18 Credits

#### MD4 9525 Colorectal Surgery Cr. 3,6

Students will learn about common colon and rectal ailments and surgical procedures in both inpatient and outpatient settings. Offered Every Term. **Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

### MD4 9528 Maxillofacial Surgery Sub-Internship Cr. 3,6

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 Fourth Year.

#### Repeatable for 18 Credits

#### MD4 9530 Urology Sub-Internship 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 Fourth Year.

#### Repeatable for 18 Credits

#### 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.

### 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 Intermittently.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### MD4 9600 Residency Preparation - Nonsurgical Cr. 6

This one month elective course will prepare Senior Medical Students to enter residency training with a superior degree of skill. The sessions will be organized into 2 phases—those topics applicable to all specialties and those specific to specialties. Lecture, online exercises, small group discussions and simulation will be used as instructional modalities. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### MD4 9610 Teaching and Learning in Medical Education (TLMed) Cr. 2

Educational skills are increasingly recognized as essential components of the education of future physicians, particularly in residency training when learners take on new teaching responsibilities for their teams. MD4 8393 provides students with the skills, strategies, and techniques to instruct medical students in classroom and clinical contexts. This course integrates a full range of educational experiences, including teaching placements, live virtual workshops, self-paced online learning modules, instructional design projects, and a final capstone project to develop M4 students into skillful teachers. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

## Repeatable for 8 Credits

# MD4 9620 Clinical Reasoning Using Integrated Skills in Education (CRUISE) Cr. 2

CRUISE is a year-long longitudinal course completes the four-year Highways to Excellence curriculum. WSU senior students will advance skills in areas common to all specialties while applying clinical reasoning to online assignments, in-person workshops, and asynchronous content. Offered Every Term.

**Restriction(s):** Enrollment limited to students with a class of Med Fourth Year.

#### Repeatable for 8 Credits