

Standard 7: Curricular Content

The faculty of a medical school ensure that the medical curriculum provides content of sufficient breadth and depth to prepare medical students for entry into any residency program and for the subsequent contemporary practice of medicine.

Supporting Data

| Table 7.0-1 General Medical Education - Preparation for Residency | | | | | | |
|--|--------------|------------|--------------|------------|--------------|------------|
| Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who <i>agree/strongly agree</i> (aggregated) that they are prepared in the following ways to begin a residency program. | | | | | | |
| | AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
| | School % | National % | School % | National % | School % | National % |
| Acquired an understanding of common conditions and their management. | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Acquired basic skills in clinical decision-making and application of evidence-based information. | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will be available beginning in 2021

7.1 Biomedical, Behavioral, Social Sciences

The faculty of a medical school ensure that the medical curriculum includes content from the biomedical, behavioral, and socioeconomic sciences to support medical students' mastery of contemporary medical science knowledge and concepts and the methods fundamental to applying them to the health of individuals and populations.

Supporting Data

| Table 7.1-1 Curricular Content | | | |
|--|--|-----------------|--------|
| For each topic area, place an "X" under each column to indicate the phases in which the learning objectives related to each topic are taught and assessed. | | | |
| Topic Areas | Phases Where Topic Areas Are Taught and Assessed | | |
| | Pre-clerkship Phase | Clerkship Phase | Other* |
| Biochemistry | X | X | |
| Biostatistics and epidemiology | X | X | |
| Genetics | X | X | |
| Gross anatomy | X | X | |
| Immunology | X | X | |
| Microbiology | X | X | |
| Pathology | X | X | |
| Pharmacology | X | X | |
| Physiology | X | X | |
| Behavioral science | X | X | |
| Pathophysiology | X | X | |

*The curriculum only has 2 phases

| Table 7.1-2 Basic Science Education | | | | | | |
|--|--------------|------------|--------------|------------|--------------|------------|
| Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who rated preparation for clinical clerkships and electives as <i>excellent or good</i> (aggregated) in the following basic medical sciences. | | | | | | |
| | AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
| | School % | National % | School % | National % | School % | National % |
| Biochemistry | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Biostatistics and epidemiology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Genetics | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Gross anatomy | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Immunology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Microbiology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Pathology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Pharmacology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Physiology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Behavioral science | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Pathophysiology | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will not be available until 2021.

Table 7.1-3 | Curricular Content

For each topic area, place an “X” under each column to indicate the phases in which the learning objectives related to each topic are taught and assessed.

| | Phases Where Topic Areas are Taught and Assessed | | |
|---------------------------|--|-----------------|--------|
| | Pre-clerkship Phase | Clerkship Phase | Other* |
| Global health | X** | X | |
| Health care financing | X | X | X |
| Human sexuality | X | X | |
| Law and medicine | X | X | X |
| Nutrition | X | X | |
| Pain management | X | X | |
| Patient safety | X | X | X |
| Population-based medicine | X | X | X |

*Other: Students have a 4-year longitudinal course on Leadership in Medicine & Healthcare (LMH).

**Infectious diseases thread

Table 7.1-4 | General Medical Education - Preparation for Residency

Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who *agree/strongly agree* (aggregated) that they are prepared in the following area to begin a residency program: *Fundamental understanding of the issues in social sciences of medicine (e.g., ethics, humanism, professionalism, organization, and structure of the health care system).*

| AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
|--------------|------------|--------------|------------|--------------|------------|
| School % | National % | School % | National % | School % | National % |
| N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will not be available until 2021.

Narrative Response

- a. Briefly summarize any changes in the last two academic years in the extent or curricular placement of any of the content areas included in the tables above, and briefly note the rationale for the change (i.e., student feedback, test scores, new subject matter, etc.).

| Topic from Tables 7.1-1 to 7.1-3 | Change AY 2018-2019 | Rationale | Change AY 2019-2020 | Rationale |
|----------------------------------|---------------------|-----------|--|---|
| Immunology | N/A | N/A | Introduced in Year 1, FMS 502 and threaded into organ system blocks across remaining 4 terms | Central role of immunology in pathogenesis, treatment |
| Microbiology | N/A | N/A | Now threaded with infectious diseases throughout pre-clerkship curriculum; Reinforced in Year 3, academic half-day | Promote integration of concepts for clinical application |
| Physiology | N/A | N/A | Introduced in Year 1, FMS 501, threaded into organ system blocks across remaining 5 courses FMS 502-513 | Promote integration of concepts for clinical application |
| Pathophysiology | N/A | N/A | Introduced in Year 1, FMS 501, threaded into organ system blocks across remaining 5 courses FMS 502-513 | Promote integration of concepts for clinical application |
| Nutrition | N/A | N/A | Focused content relevant to medical students; Threaded in appropriate organ system blocks in pre-clerkship curriculum | Student feedback, course evaluations, and to promote integration of concepts for clinical application |

In addition to topics from the Tables 7.1-1 and 7.1-3, instruction in Pharmacology is introduced in FMS 501, given more time, and threaded throughout pre-clerkship curriculum based on local exam performance and desire to promote integration of concepts for clinical application.

7.2 Organ Systems/Life Cycle/Primary Care/ Prevention/Symptoms/Signs/Differential Diagnosis, Treatment Planning, Impact of Behavioral and Social Factors

The faculty of a medical school ensure that the medical curriculum includes content and clinical experiences related to each organ system; each phase of the human life cycle; continuity of care; and preventive, acute, chronic, rehabilitative, and end-of-life care.

Supporting Data

| Table 7.2-1a General Medical Education – Education to Diagnose Disease | | | | | | | | | |
|--|--|-------------------------------|------|---|------|-----------------------------------|------|---|------|
| Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education to diagnose disease. Add tables as needed for additional relevant survey questions. | | | | | | | | | |
| Medical School Class | Number of Total Responses to this Item | Number and % of N/A Responses | | Number and % of combined Dissatisfied and Very Dissatisfied Responses | | Number and % of Neutral Responses | | Number and % of combined Satisfied and Very Satisfied Responses | |
| | | N | % | N | % | N | % | N | % |
| M1 ⁺ | 78 | 18 | 23% | 0 | 0% | 14 | 18% | 46 | 59% |
| M2 ⁺ | 55 | 0 | 0% | 2 | 4% | 10 | 18% | 43 | 78% |
| M3 ⁺ | 58 | 0 | 0% | 4 | 7% | 11 | 19% | 43 | 74% |
| M4 | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Total | 191 | 18 | 9% | 6 | 3% | 35 | 18% | 132 | 69% |

*The ISA team used a 5-point scale that included a “neutral” response for the ISA survey. Detailed information about student responses to this question can be reviewed in the attached ISA report.

*There were no M4 students at the time of the ISA.

| Table 7.2-1b General Medical Education – Education to Manage Disease | | | | | | | | | |
|--|--|-------------------------------|------|---|------|-----------------------------------|------|---|------|
| Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education to manage disease. Add tables as needed for additional relevant survey questions. | | | | | | | | | |
| Medical School Class | Number of Total Responses to this Item | Number and % of N/A Responses | | Number and % of combined Dissatisfied and Very Dissatisfied Responses | | Number and % of Neutral Responses | | Number and % of combined Satisfied and Very Satisfied Responses | |
| | | N | % | N | % | N | % | N | % |
| M1 ⁺ | 78 | 23 | 29% | 1 | 1% | 17 | 22% | 37 | 47% |
| M2 ⁺ | 55 | 0 | 0% | 8 | 15% | 11 | 20% | 36 | 65% |
| M3 ⁺ | 58 | 0 | 0% | 8 | 14% | 16 | 28% | 34 | 59% |
| M4 | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Total | 191 | 23 | 12% | 17 | 9% | 44 | 23% | 107 | 56% |

*The ISA team used a 5-point scale that included a “neutral” response for the ISA survey. Detailed information about student responses to this question can be reviewed in the attached ISA report.

*There were no M4 students at the time of the ISA.

Table 7.2-1c | General Medical Education – Education in Disease Prevention

Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education in disease prevention. Add tables as needed for additional relevant survey questions.

| Medical School Class | Number of Total Responses to this Item | Number and % of N/A Responses | | Number and % of combined Dissatisfied and Very Dissatisfied Responses | | Number and % of Neutral Responses | | Number and % of combined Satisfied and Very Satisfied Responses | |
|----------------------|--|-------------------------------|------|---|------|-----------------------------------|------|---|------|
| | | N | % | N | % | N | % | N | % |
| M1 ⁺ | 78 | 27 | 35% | 2 | 3% | 13 | 17% | 36 | 47% |
| M2 ⁺ | 55 | 0 | 0% | 3 | 6% | 12 | 22% | 40 | 73% |
| M3 ⁺ | 58 | 0 | 0% | 4 | 7% | 11 | 19% | 43 | 74% |
| M4 | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Total | 191 | 27 | 14% | 9 | 5% | 36 | 19% | 122 | 64% |

⁺The ISA team used a 5-point scale that included a “neutral” response for the ISA survey. Detailed information about student responses to this question can be reviewed in the attached ISA report.

*There were no M4 students at the time of the ISA.

Table 7.2-1d | General Medical Education –Education in Health Maintenance

Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with adequacy of education in health maintenance. Add tables as needed for additional relevant survey questions.

| Medical School Class | Number of Total Responses to this Item | Number and % of N/A Responses | | Number and % of combined Dissatisfied and Very Dissatisfied Responses | | Number and % of Neutral Responses | | Number and % of combined Satisfied and Very Satisfied Responses | |
|----------------------|--|-------------------------------|------|---|------|-----------------------------------|------|---|------|
| | | N | % | N | % | N | % | N | % |
| M1 ⁺ | 78 | 24 | 31% | 1 | 1% | 15 | 19% | 38 | 49% |
| M2 ⁺ | 55 | 0 | 0% | 4 | 7% | 13 | 24% | 38 | 69% |
| M3 ⁺ | 58 | 0 | 0% | 6 | 10% | 12 | 21% | 40 | 69% |
| M4 | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Total | 191 | 24 | 13% | 11 | 6% | 40 | 21% | 116 | 61% |

⁺The ISA team used a 5-point scale that included a “neutral” response for the ISA survey. Detailed information about student responses to this question can be reviewed in the attached ISA report.

*There were no M4 students at the time of the ISA.

Table 7.2-2 | General Medical Education

Place an “X” in each column indicating the courses or clerkships where each of the following topic areas is taught and assessed. Use same course names as provided. Add rows for course and clerkship names as needed.

| Course/Clerkship name | Continuity of care | Preventive care | Acute care | Chronic care | Rehabilitative care | End-of-life care |
|-----------------------|--------------------|-----------------|------------|--------------|---------------------|------------------|
| FMS 501 | | X | | X | | |
| FMS 502 | | | X | X | | X |
| FMS 503 | | | X | X | | X |
| FMS 511 | | | X | X | | X |
| FMS 512 | | | X | X | | X |
| FMS 513 | | | X | X | X | X |
| MEDCLIN 521 | X | X | X | X | X | X |
| MEDCLIN 522 | X | X | X | X | X | X |
| MEDCLIN 523 | X | X | X | X | X | X |
| MEDCLIN 524 | X | X | X | X | X | X |
| Year 4 Courses | | | X | X | | X |

7.3 Scientific Method/Clinical/Translational Research

The faculty of a medical school ensure that the medical curriculum includes instruction in the scientific method and in the basic scientific and ethical principles of clinical and translational research, including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.

Narrative Response

- a. Identify where in the curriculum medical students receive instruction in the scientific method. Include a description of which aspects of the scientific method are covered, the teaching format(s) used, and how student learning is assessed.

| Instruction in the Scientific Method | | | |
|--|--|--|--|
| Course | Description of content covered | Teaching format(s) | Assessment of student learning |
| FMS 501 Evidence-Based Medicine Component | Systematic observations: How we study health | Discussion, Large Group (more than 12) | MCQ knowledge questions, course exam |
| | Measurement: Population health metrics | Discussion, Large Group (more than 12) | MCQ knowledge questions, course exam |
| | Study design: Experimental study design (Randomized Control trials, Clinical trials) | Discussion, Large Group (more than 12) | MCQ knowledge questions, course exam |
| | Study design: Observational study design (Cohort studies, Case-control studies) | Discussion, Large Group (more than 12) | MCQ knowledge questions, course exam |
| | Quantitative and qualitative methods: Data collection and analysis | Discussion, Large Group (more than 12) | MCQ knowledge questions, course exam |
| FMS 502 (EBM component) | Critical appraisal of the medical literature: Review and application of EBM guidelines to journal articles relevant to patient care decisions | Small group | MCQ, Workplace-based assessments (WBA) |
| FMS 503 (EBM component) | Formulating and framing scholarly questions/hypotheses | Small group | WBA |
| | Scholarly project design | Small group | WBA |
| Independent study 2 nd , 3 rd , and 4 th year | Application: formulating / framing scholarly questions/hypotheses, identifying study design, executing data collection and analysis, and writing project (background, results, discussion) | Individualized mentoring from project supervisor(s) and Component Director | Submission of final portfolio to Scholarly Project Review Team |

- b. Describe the locations in the curriculum where medical students are taught and assessed on the basic scientific and/or ethical principles of clinical and translational research and the methods for conducting such research. In the description, include the required courses/clerkships in which medical students learn how such research is conducted, evaluated, explained to patients and applied to patient care, and how students' acquisition of this knowledge is assessed.

| Concept/content | Taught (Required courses, clerkships) | Acquisition of Knowledge Assessed |
|---|---|---|
| Basic scientific principles of clinical-/translational research | FMS 501, Evidence-based medicine component (see above Table) | MCQ knowledge questions on course exams |
| Ethical principles of clinical-/translational research | FMS 501, 502, and 503, includes completion of CITI training in FMS 502; how to complete an IRB submission | MCQ knowledge questions on course exams Certificate of completion of CITI training IRB submission to Scholarly Project Review Team* |
| Methods for conducting clinical- | FMS 501, 502, 503 (see above Table); | MCQ knowledge questions on course |

| | | |
|--|--|---|
| /-translational research --conducted --evaluated --explained to patients --applied to patient care | specifically, in 502, students use existing research journal articles to analyze study design and methods, evaluate validity evidence for results, and consider how the data apply to care of patients MED CLIN 521-524, journal clubs occur in Academic Half Day approximately once per month; students analyze studies and apply them to patient care | exams Small group facilitators complete WBA (midpoint and end of 502) MCQ knowledge questions |
|--|--|---|

*Required of students whose Scholarly Projects involve human subjects research

c. Describe where in the curriculum students are taught and assessed on the application of biomedical statistics and medical science research to patient care.

| Concept/content | Taught (Required courses, clerkships) | Acquisition of Knowledge Assessed |
|---|--|--|
| Application of biomedical statistics to patient care | FMS 501, formal instruction in biomedical statistics FMS 502, application of statistical methods through critical appraisal of scientific research MED CLIN 521-524, application of biomedical statistics through critical appraisal of the literature and patient case discussion | MCQ knowledge questions on course exams Small group facilitators complete WBAs (midpoint and end of 502 as well as 521-524) |
| Application of medical science research to patient care | FMS 502, EBM component. Students use existing research journal articles to analyze study design and methods, evaluate validity evidence for results, and consider how the data apply to care of patients MED CLIN 521-524, application of research through critical appraisal of the literature and patient case discussion During the longitudinal 'Scholarly Project' component of the 4-year curriculum, students complete coursework and work individually with mentors to learn how clinical research is explained to patients and applied to patient care. | MCQ knowledge questions on course exams WBAs (midpoint and end of 502 as well as 521-524) |

7.4 Critical Judgment/Problem-Solving Skills

The faculty of a medical school ensure that the medical curriculum incorporates the fundamental principles of medicine, provides opportunities for medical students to acquire skills of critical judgment based on evidence and experience, and develops medical students' ability to use those principles and skills effectively in solving problems of health and disease.

Supporting Data

| Table 7.4-1 Critical Judgment and Problem Solving | | | |
|---|---|-----------------|--------|
| For each topic area, place an “X” in the appropriate column to indicate whether the topic is taught separately as an independent required course and/or as part of a required integrated course. Place an “X” under each column to indicate the year(s) in which each topic is taught and assessed. | | | |
| Topic Areas | Location in the curriculum where the listed skill is taught/assessed as independent required course and/or part of a required integrated course | | |
| | Pre-clerkship Phase | Clerkship Phase | Other* |
| Skills of critical judgment based on evidence | X | X | |
| Skills of medical problem solving | X | X | |

Narrative Response

- a. Provide two detailed examples from the pre-clerkship phase of the curriculum of where students learn, demonstrate, and are assessed on each of the following skills. In each description, include the courses where this instruction and assessment occurs and provide the relevant learning objectives.
 1. Skills of critical judgment based on evidence and experience
 2. Skills of medical problem solving

1. Skills of critical judgment based on evidence and experience (learn, demonstrate, and are assessed):

Example 1: Critical appraisal of the medical literature, FMS 501-503 (Evidence-based medicine component).

The Year 1 Foundations of Medical Sciences courses (FMS 501-503) contain an Evidence-Based Medicine (EBM) component. The EBM component introduces common research methodologies used in the health sciences, encourages students to form questions and complete literature searches, and develop skills in critical appraisal (scholarship) and application of evidence to patient care (translational research). The EBM component promotes evidence-based decision making and enables students to be appropriate consumers of evidence. In FMS 501, the EBM component is delivered as large group active learning sessions. Session topics include population health, biostatistics, observational and experimental study design, quality of evidence, types of bias, qualitative and quantitative research methodology. Students demonstrate the ability to describe the range of factors that influence the clinical decision-making process and further describe the value of high-quality medical information for clinical care. Students also demonstrate the ability to select and assess the validity of treatment studies including randomization, blinding, baseline group comparability, follow-up, and intent to treat. Students assess the importance of study findings by deriving from the research evidence, risk, relative risk reduction, absolute risk reduction and numbers needed to treat. During FMS 502, EBM sessions use a journal club format. Students review a selected article, analyze the content, assess the credibility of the information (study question, design, method, analysis), and discuss how findings are relevant to specific patient contexts. Students use EBM sessions to apply what was learned and are expected to find and cite reputable sources. Students' peers and group facilitators offer feedback and suggestions throughout the discussion.

Content delivered in the EBM component is assessed through written examinations (weekly exams and monthly Mastery exams) and work-place based assessments (direct observation).

Learning Objectives:

- Recognize different types of study designs and understand their strengths and limitations
- Describe how to formulate Patient, Population, Problem, Intervention, Comparison, Outcome (PICO) questions
- Use a systematic process to identify and filter sources of medical evidence
- Compare and contrast the level of rigor between two systematic reviews
- Synthesize and review data sources and health metrics addressing population health
- Critically analyze the formulation of PICO questions
- Examine the relative strengths, limitations of different types of study designs as well as the alignment of research questions with design selection
- Review criteria addressing the nature of causality
- Appraise ethical principles in research
- Differentiate between different sources of evidence and their relevance to clinical decision making
- Distinguish a systematic review from a meta-analysis
- Review a systematic review using the elements of PRISMA and the Newcastle-Ottawa Scale
- Apply MOOSE epidemiology guidelines to the analysis of a systematic review
- Describe how qualitative research can be used to identify the underlying reasons for a behavior
- Describe common qualitative methods: participant recruitment, data collection, data analysis and dissemination of findings

Example 2: Scholarly project (Longitudinal requirement across 4 years):

Students demonstrate skills of critical judgment based on evidence and experience through the required Scholarly Project. Students complete the required question-driven scholarly project on a topic of choice, relevant to healthcare and a career in medicine. Work on the scholarly project spans Years 1-4. The project must adhere to scholarly standards to ensure that the student's methods and approaches are scholarly and rigorous, and the work and results are evidence-based. There are four phases of learning related to the Scholarly Project requirement:

1. Understanding Scholarship. In FMS 503 (Evidence-Based Medicine component), students learn about types of scholarship and apply concepts learned in FMS 501 (EBM) to their initial ideas about a scholarly project.
2. Designing a Scholarly Project. Also, in FMS 503, students demonstrate their ability to apply concepts of generating a research/scholarship question, appropriate study design for the question, and appropriate methods for the study design and question. Throughout, students must use critical judgment based on evidence about their chosen topic.
3. Implementing a Scholarly Project. Throughout Years 2 and 3, students are given time to implement their Scholarly Project, gaining experience with critical judgment. Each student works closely with a project supervisor. The project supervisor provides formative feedback throughout the process.
4. Presentation of a Scholarly Project. Students are required to submit their project in written form as a Capstone between midway Year 4 and 1 month prior to graduation. Project supervisors provide formal feedback twice: at the end of Year 2 and the mid-point of Year 4. Feedback is focused on skills related to the experiential development critical judgment as demonstrated by self-awareness and responsiveness to formative feedback, interpersonal and communication skills, and professionalism.

The Scholarly Project assessment has three dimensions:

1. The Self-Ownership of Learning dimension assesses the student's ability to identify and articulate connections among their activities, learning, progression toward program competencies, and professional development.
2. The Scholarly Attributes dimension assesses the quality and rigor of the student's scholarly work. This includes review of project planning and execution, the way the student engages with the project, evidence of the development and demonstration of effective communication skills.

3. The Reflection on the Role of the Scholar dimension assesses the student's awareness of their own learning, strengths and weaknesses and his or her ability to derive value from experiences in the broader contexts of personal, professional identity, and growth.

Scholarly Projects will be assessed using a portfolio method of assessment. The portfolio allows students to present artifacts that demonstrate that learning has occurred, and how the experience helped meet core program competencies. Artifacts will be presented within the Scholarly Project Portfolio, including project proposal, progress report, final report, reflection on the learning that occurred, feedback from supervisor and presentation of the project deliverable. Final assessment (fourth year) will be guided by a rubric.

The Scholarly Project Student Handbook is available in Appendix 7-04-1.

Learning objectives:

- Design a scholarly project that contributes to the creation, dissemination, application, and translation of knowledge
- Demonstrate an understanding of the physician's role in knowledge translation and dissemination
- Develop critical and self-directed thought, as well as the problem-solving skills necessary for modern medicine
- Enhance self-directed learning habits that are important for medical education and clinical practice
- Develop a plan for continual self-directed learning (project plan) and document progress towards identified learning goals
- Integrate reflection as a key component of scholarly practice

2. Skills of medical problem solving (learn, demonstrate, and are assessed):

Example 1: Case-Based Learning small groups, FMS 501-513

Students gain skills in medical problem solving in the pre-clerkship phase of the curriculum in the Case-Based Learning (CBL) component of Foundations of Medicine courses (FMS 501-503, 511-513). In the CBL component, small groups of students are introduced each week to a new richly narrated written case aligned with topics being delivered concurrently in the same week. Each case includes a detailed description of a patient's chief complaint, medical history and physical examination, evolving clinical symptoms and signs, treatment and management information that is revealed sequentially across the week.

The faculty facilitator guide provides the necessary scaffolding for small groups to address material comparably. Students generate their own self-directed learning objectives related to the case in addition to higher order learning objectives specifically designed to develop the skills of medical problem solving, including 1) analysis of the patient's primary problem, 2) identifying key features of the patient's case and contrasting those features with typical features of plausible diagnostic considerations, 3) discussing, prioritizing, and justifying a plausible differential diagnosis based on case features, and 4) discussing testing, test interpretation, treatment, and management as appropriate to each case.

Throughout, students are prompted to discuss foundational science aspects of the case to promote conceptual integration of science and clinical learning, including, but not limited to, anatomy, histology, pathology, pathophysiology, genetics, molecular and cell biology components. Students are also prompted to consider contextual factors including social determinants of health, population health (incidence, prevalence, prevention, reporting requirements), and health equity. Faculty guidance is structured in the first term, FMS 501, and gradually fades as student groups demonstrate self-management. Cases transition over the 2-year pre-clerkship curriculum from straightforward cases with known diagnoses to more complex cases where the final diagnosis is not revealed until the end of the week at a Master Clinician session. This purposeful evolution is designed to simulate actual clinical practice prior to students' transition to the Longitudinal Integrated Clerkship year.

CBL Facilitator and Student Manuals are provided in appendices 7-04-02 and 7-04-03.

Formative and summative assessment of student performance in small group CBL takes place with one-on-one formative feedback provided by the facilitator to the student in person midway through the course, and in the form of Workplace-Based Assessment of the student's performance in each of the 6 competency domains at the end of the course.

Learning objectives:

- Differentiate the predisposing conditions (or risk factors for developing), clinical presentation, social and cultural contextual factors, and complications of Diagnosis A and Diagnosis B (where selected diagnoses are relevant to the case of the week)
- Differentiate an approach to treatment and management of a patient who might have either Diagnosis A or Diagnosis B (where selected diagnoses are relevant to the case of the week)
- Differentiate the anatomy, pathophysiology, histology, and cellular/molecular mechanisms as relevant to Diagnosis A and Diagnosis B (where selected diagnoses are relevant to the case of the week)
- Differentiate other diagnostic considerations from Diagnosis A or Diagnosis B when other diagnoses provide a more plausible diagnostic consideration for the patient's presenting risk factors, social determinants of health, symptoms, signs, and initial work-up, including pathophysiological mechanisms and approach to treatment and management.

Example 2: Art and Practice of Medicine

Students gain further skills of medical problem solving in the pre-clerkship phase of the curriculum in the clinical skills component, Art and Practice of Medicine (APM). This component is delivered throughout Year 1 and Year 2, approximately 4 hours per week. Skills are introduced in large group sessions, then practiced and reinforced in small groups. Students learn how to gather a medical history, perform physical examination, document patient encounters, analyze tests results (e.g. electrocardiograms, radiographs), and deliver oral presentations of patient encounters. After learning basic skills, students practice integrating clinical information in relationship to patients' primary concerns, generate and prioritize differential diagnoses, and describe next steps in diagnosis, treatment, and management. These practice sessions occur with simulated cases (paper) and standardized patients. Based on this foundation, students then enter the clinical workplace and interview and examine "real" patients and apply their medical problem-solving skills to summarize and document their findings and plan.

The APM component also addresses medical ethics, health equity, social determinants of health, and communication skills so that students learn the skills of medical problem solving in the context of these larger, complex challenges. In all APM sessions, students work under the close supervision of a faculty facilitator who is present to ensure that students receive immediate formative feedback regarding their clinical and problem-solving skills when necessary to enhance the learning experience. Faculty facilitators complete Workplace-Based Assessments (WBAs) based on direct observation of students' performances. Students' knowledge is also tested with MCQs.

Learning objectives:

- Demonstrate effective strategies for addressing knowledge gaps related to a clinical presentation
- Describe the use of combined reasoning when thinking through a clinical problem
- Explain links between clinical presentation findings (e.g. history, physical examination) and corresponding biomedical sciences
- Construct a list of plausible diagnoses for the case-based on the clinical and biomedical science findings
- Use clinical information (e.g. history, physical examination, laboratory test results, imaging and/or radiology test results) to refine and prioritize the differential diagnosis
- Provide a rationale for the diagnostic work-up and management based on clinical and biomedical science findings
- Compare and contrast plausible diagnoses using clinical information from the case

7.5 Societal Problems

The faculty of a medical school ensure that the medical curriculum includes instruction in the diagnosis, prevention, appropriate reporting, and treatment of the medical consequences of common societal problems.

Narrative Response

- a. Describe five common societal problems that are taught and assessed in the curriculum.

For each of the five societal problems:

1. Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed
2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem

Five Common Societal Problems:

1. *Trauma Informed Care (Substance Abuse, Violence, Poverty, Homelessness, etc.):* Individual trauma results from an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life threatening, and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being. Trauma-informed care is an approach that realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in patients, families, staff, and others; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, while seeking to actively resist re-traumatization.

1. Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed: Content related to Trauma Informed Care is taught and assessed in the following courses:

| Trauma Informed Care | | |
|----------------------|---|---|
| Course | Instructional Methods | Assessment Methods |
| FMS 501 | <ul style="list-style-type: none"> • Case-Based Instruction/Learning • Demonstration • Role Play/Dramatization • Discussion, Small Group (12 or less) • Discussion, Large Group (more than 12) • Peer Teaching • Reflection • Clinical Experience - Ambulatory • Concept Mapping • Independent Learning • Patient Presentation - Learner | <ul style="list-style-type: none"> • Exam - Institutionally Developed, Clinical Performance • Exam - Institutionally Developed, Written/ Computer-based • Exam – Nationally Normed / Standardized, Subject • Multisource Assessment • Narrative Assessment • Oral Patient Presentation • Participation • Peer Assessment • Portfolio-Based Assessment • Research or Project Assessment • Self-Assessment |
| FMS 502 | | |
| FMS 511 | | |
| FMS 512 | | |
| FMS 513 | | |
| MED CLIN 522 | | |
| MED CLIN 523 | | |
| MED CLIN 524 | | |
| LMH 522 | | |

2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem:

| Trauma Informed Care | |
|----------------------|---|
| Course | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • Adapt patient communication while recognizing potential conflicts • Analyze health inequities in the local community • Analyze the principles of health equity and social justice from a population health perspective • Apply anti-biasing strategies to LGBTQAI community • Apply social determinants of health and social determinants of equity to population health • Compare levels of health disparities in the U.S. with those from other first world nations • Critically examine U.S. health disparities by race/ethnicity, numeracy/literacy, socioeconomic status, educational attainment, employment, healthcare access, and place (rural vs. urban) • Define health equity, social determinants of equity, social determinants of health • Demonstrate sensitivity toward all patients, demonstrating empathy while recognizing unique life challenges and experiences, values, cultures, and beliefs • Describe biologic, social, economic, environmental, and health-care related determinants of health • Describe racism, sexism, SES, and other inequities as social determinants of equity • Describe socioeconomic, environmental, cultural, and other determinants of health • Describe why conceptual models are needed to inform population health decisions • Discuss how access to medical care affects the magnitude and characteristics of health disparities • Explain the effects of language barriers on health inequities • Identify and elucidate one's own biases, beliefs and values that may cause conflicts during medical encounters • List lead testing requirements for children enrolled in Medicaid • Understand effect of language barriers on health inequities • Understand racism, sexism, and SES as social determinants of equity |
| FMS 502 | <ul style="list-style-type: none"> • Define race and racism and how they affect health • Demonstrate sensitivity in obtaining a sexual history from a patient • Demonstrate skills in responding effectively to patients who cross professional/personal boundaries • Demonstrate use of the CAGE questions in assessing substance use • Describe the ethical failings of the TSS with respect to the principle of beneficence, particularly with respect to the ethical responsibilities to ensure that the benefits of study (to society) outweigh its risks (to subjects), that the study has social and scientific value, and that the study be properly designed • Describe the ethical failings of the TSS with respect to the principle of justice, and particularly with respect to issues of proper ethical review of human subjects research and fair subject selection • Describe the ethical failings of the TSS with respect to the principle of respect for persons and informed consent • Describe the general principles of obtaining a history of substance use • Differentiate between the three levels of racism: institutional, interpersonal and internalized • Distinguish between racialized medicine and institutional racism • Explain the rationale for routinely asking about substance use in all patients • Give examples of local history and existing racial health disparities in Spokane, as an exemplar of inequities in a community • Identify the racist assumptions that led to the design and motivation for the Tuskegee Syphilis Study (TSS) • Recognize how even contemporary biomedical research can be driven by cultural assumptions which undermine ethical justification |
| FMS 511 | <ul style="list-style-type: none"> • Appreciate and explain cultural factors that create difficulties for people in need of treatment for psychiatric and substance use disorders • Define race and racism and how they affect health • Demonstrate how to use the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 diagnostic criteria for a Substance Use Disorder to characterize the level of severity as mild, moderate, or severe • Describe ethical issues related to involuntary commitment of a patient, and how this practice might be justified in particular cases |

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| | <ul style="list-style-type: none"> • Describe possible concerns about behaviors being medicalized by being considered as part of a mental health diagnosis • Describe the content, purpose, and utility of the mental status examination • Describe the currently widely used primary care screening tools for depression and anxiety • Describe the possible tensions between public interests and individual patient interests when treating mental health disorders • Describe why and how a patient’s cultural background, family role, gender identity, sexual orientation, and spiritual beliefs are considered in behavioral medicine • Differentiate between the three levels of racism: institutional, interpersonal and internalized • Discuss examples of common ideas and belief systems that create controversy regarding how best to treat individuals with psychiatric and substance use disorders • Distinguish between racialized medicine and institutional racism • Explain how mental health diagnoses create social stigmas and discuss how these might lead an individual to avoid care • Explain how psychodynamic principles can be applied to better understand how people interact with each other and cope with their environment in both adaptive and maladaptive ways • Explain the advantages and disadvantages of screening tools for mental health in primary care • Explain the differences between the processes and typical outcomes of punishment, positive reinforcement and negative reinforcement • Explain the general principles and clinical patterns of a substance use disorder • Explain Trauma-Informed Care • Give examples of local history and existing racial health disparities in Spokane, as an exemplar of inequities in a community • List at least five adverse childhood experiences and describe how ACEs increase the risk for the development of subsequent medical and psychological problems how those risks may be mitigated by resilience and nurturing • Provide examples of medications used to treat substance use disorders, including alcohol and opioid use disorder • Provide examples of ways to improve adherence to treatment recommendations in a patient with a severe and persistent mental disorder |
| FMS 512 | <ul style="list-style-type: none"> • Define gender identity and distinguish from sex and sexual orientation, and its importance in health • Define trauma and trauma-informed care • Demonstrate good practices related to delivering difficult news in a variety of case scenarios • Demonstrate physical examination maneuvers in a manner sensitive to all patients, particularly those with a history of trauma • Describe appropriate clinician responses to the emotions of a patient receiving difficult news • Describe key principles of performing a physical examination in a manner that is sensitive to all patients, particularly those with a history of trauma • Describe specific health inequities for LGBTQ+ patients • Describe the history of discrimination in medicine towards LGBTQ+ patients • Distinguish effective and ineffective communication methods to elucidate concerns about personal safety • Employ communication strategies with patients, caregivers, and family members that may elucidate concerns about personal safety • Explain the importance of gender identity to health • Give examples of health inequities for LGBTQ+ patients • Identify appropriate resources to address the identified LGBTQ+ health inequities • Identify LGBTQ+ health issues • Identify resources to support LGBTQ+ health needs • List specific examples of trauma-informed language and behaviors that may be utilized during the physical examination • Recognize common barriers in appropriately conveying bad news to a patient and family members • Recognize the role of the medical student and physician in any setting to identify signs of abuse or neglect |
| FMS 513 | <ul style="list-style-type: none"> • Analyze the potential fetal risk of a drug in relation to its pharmacology • Demonstrate the inadequacy of current automated translations for patient communication |

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| | <ul style="list-style-type: none"> • Describe the appropriate use of language interpretation services in health care settings • Discuss medical interpretation in the context of health literacy • Recognize best practices in serving patients who face language barriers |
| MED CLIN 522 | <ul style="list-style-type: none"> • Construct an appropriate focus for history and physical examination for a patient with a specific complaint • Compares and contrast the management of specific complaints in various and appropriate clinical contexts |
| MED CLIN 523 | <ul style="list-style-type: none"> • Demonstrate appropriate use of Balint methods • Demonstrate use of active listening • Use empathic language when communicating with fellow students • Identify the patient’s perspective on their health • Demonstrate empathy and compassion when taking the patient’s perspective on their health |
| MED CLIN 524 | <ul style="list-style-type: none"> • Evaluate health systems’ responses to the COVID-19 pandemic and identify the principles that guide their decisions • Explain the role of the epidemiologist in addressing emerging infectious diseases • Describe the Epidemic Intelligence Service and explain how physician trainees can pursue further education with this organization • Develop management plans that demonstrate due attention to discharge planning, and recognition of key community resources to support the patient and family once out of hospital • Demonstrate appropriate use of Balint methods • Use empathic language when communicating with fellow students • Demonstrate empathy and compassion when taking the patient’s perspective on their health • Demonstrate use of active listening • Identify the patient’s perspective on their health |
| LMH 522 | <ul style="list-style-type: none"> • Analyze structural contributors to patient health • Apply population health approaches to social determinants of health and social determinants of equity • Apply screening tools for social determinants of health • Compare and contrast services that address SDH/E with “traditional” care • Describe impact of social determinants on health • Describe unique models of clinical or community-based services that address SDH/E • Identify and describe a clinical – community service linkage that effectively addresses a SDH/E • Identify mechanisms and barriers that exist in integrating SDH/E screening into clinical workflow • Identify one gap in the local clinical environment that would benefit from a unique service that address SDH/E • Outline a framework for clinical interventions around social determinants of health and social determinants of equity • Provide examples of population-level interventions designed to improve overall health and reduce costs of care |

2. *Persistent Pain and Opioid Dependency*: About 19% of adults report persistent pain, and physicians must help patients manage persistent pain and/or obtain appropriate substance abuse treatment. Pain is experienced subjectively and is difficult to measure; therefore, students need to understand the biological, psychological, and social aspects of pain. Students will know how to evaluate pain in a culturally competent manner, interpret signs, symptoms, and diagnostic testing results properly, and manage pain-related behaviors without relying solely on prescribing opioid pain medications.

- Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed:

| Persistent Pain and Opioid Dependency | | |
|---------------------------------------|---|---|
| Course | Instructional Methods | Assessment Methods |
| FMS 501 | <ul style="list-style-type: none"> • Case-Based Instruction/Learning • Demonstration • Role Play/Dramatization • Discussion, Small Group (12 or less) • Discussion, Large Group (more than 12) • Peer Teaching • Reflection • Clinical Experience - Ambulatory • Concept Mapping • Independent Learning • Patient Presentation - Learner | <ul style="list-style-type: none"> • Clinical Documentation Review • Clinical Performance Rating / Checklist • Exam - Institutionally Developed, Clinical Performance • Exam - Institutionally Developed, Written/ Computer-based • Exam – Nationally Normed / Standardized, Subject • Multisource Assessment • Narrative Assessment • Oral Patient Presentation • Participation • Peer Assessment • Portfolio-Based Assessment • Research or Project Assessment • Self-Assessment |
| FMS 511 | | |
| FMS 513 | | |

- Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem:

| Persistent Pain and Opioid Dependency | |
|---------------------------------------|--|
| Course | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • Describe the biochemical and clinical pharmacology of opioid analgesics such as “morphine” • Describe the biochemical and clinical pharmacology of non-steroidal anti-inflammatories such as indomethacin |
| FMS 511 | <ul style="list-style-type: none"> • Compare and contrast currently available methods for clinically assessing pain and other patient reported outcomes, including the PROMIS • Describe the pathway for pain recognition and the clinical indications for the use of opioid analgesics • Discuss the sites, mechanism of action, common adverse effects and contraindications with opioid analgesics • Compare and contrast the evidence for and against complementary, alternative, and integrative approaches to treating common conditions, including pain • Identify the most useful drugs to treat acute migraine |
| FMS 513 | <ul style="list-style-type: none"> • Describe the roles and responsibilities of the healthcare team and how they work together to provide collaborative care to patients using opioids • Differentiate between treatment options for a patient with an opioid use disorder and/or pain management • As a team, evaluate a patient for potential opioid misuse or opioid use disorder • Utilize appropriate non-stigmatizing vocabulary when caring for patients taking or potentially misusing opioids • Work collaboratively with healthcare team members, including the patient, to develop a plan of care for reducing opioid use and risk of overdose |

3. *Access to Care in Rural and Frontier Communities:* The National Rural Health Association (NRHA) observes that rural and frontier communities face a systematic shortage of health professionals, limited economic opportunities, high poverty, and limited access to essential health services. Gaps in access to primary care, mental health services and dental care are persistent problems throughout Washington state. Improved access to health services in these communities is key to the mission of the College. The American Academy of Family Physicians notes that physicians are more likely to practice in rural areas if they receive training in these communities, and this is a focus of the pre-clerkship curriculum, as well as the LIC experience.

1. Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed:

| Access to Care in Rural and Frontier Communities | | |
|--|---|--|
| Course | Instructional Methods | Assessment Methods |
| FMS 501 | <ul style="list-style-type: none"> • Case-Based Instruction/Learning • Demonstration • Role Play/Dramatization • Discussion, Small Group (12 or less) • Discussion, Large Group (more than 12) • Peer Teaching • Reflection • Clinical Experience - Ambulatory • Concept Mapping • Independent Learning • Patient Presentation - Learner | <ul style="list-style-type: none"> • Clinical Documentation Review • Clinical Performance Rating / Checklist • Exam - Institutionally Developed, Clinical Performance • Exam - Institutionally Developed, Written/Computer-based • Exam – Nationally Normed / Standardized, Subject • Multisource Assessment • Narrative Assessment • Oral Patient Presentation • Participation • Peer Assessment • Portfolio-Based Assessment • Research or Project Assessment • Self-Assessment |
| FMS 513 | | |
| LMH 511 | | |
| MED CLIN 524 | | |
| LMH 522 | | |

2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem:

| Access to Care in Rural and Frontier Communities | |
|--|--|
| Course | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • Analyze health inequities in the local community • Analyze the principles of health equity and social justice from a population health perspective • Apply a model addressing a model of population health assessment • Apply a model of addressing intervention planning • Apply social determinants of health and social determinants of equity to population health • Compare different measures of morbidity, including incidence, prevalence, attack rate, and person-time at risk • Compare levels of health disparities in the U.S. with those from other first-world nations • Critically examine U.S. health disparities by race/ethnicity, numeracy/literacy, socioeconomic status, educational attainment, employment, healthcare access, and place (rural vs. urban) • Define health equity, social determinants of equity, social determinants of health • Describe racism, sexism, SES, and other inequities as social determinants of equity • Describe barriers to accessing healthcare as related to insurance • Describe conceptual model of population health assessment and intervention planning • Describe socioeconomic, environmental, cultural, and other determinants of health • Describe why conceptual models are needed to inform population health decisions • Discuss how access to medical care affects the magnitude and characteristics of health disparities |

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| | <ul style="list-style-type: none"> Identify factors that contribute to the shortage of physicians in rural areas† Understand Native autonomy and healthcare access Understand racism, sexism, and SES as social determinants of equity |
| FMS 513 | <ul style="list-style-type: none"> Accurately document a telehealth patient visit Compare and contrast the etiology of maternal mortality in the United States versus worldwide and discuss strategies to prevent maternal mortality Define telemedicine Describe how to maintain relationship-centered care in the context of telemedicine Describe situations in which telemedicine is indicated and beneficial Describe situations in which telemedicine may not be an appropriate health care modality Distinguish synchronous from asynchronous telemedicine |
| LMH 511 | <ul style="list-style-type: none"> Diagram the relationship between cost of care, mortality, and access to primary care |
| MED CLIN 524 | <ul style="list-style-type: none"> Define triage and provide examples where triage decisions have been made based on limited resources that required physicians to decide who received life-sustaining treatment and who did not Explore the emotional burden physicians and other healthcare team members may bear when making difficult triage decisions Describe the impact of social determinants of health during epidemics and pandemics Identify and explain the ethical principles involved in triage decision-making Identify the subset of patients most at risk of a serious illness from COVID-19 (“vulnerable patients”). Define asymptomatic vector transmission and describe the role of the general population in keeping vulnerable patients safe |
| LMH 522 | <ul style="list-style-type: none"> Analyze structural contributors to patient health Apply population health approaches to social determinants of health and social determinants of equity Apply screening tools for social determinants of health Compare and contrast community-based services that address community level and individual level SDH/E Define and describe structural competency Describe at least three initiatives to reduce inequities in health and health care Describe care plans that address SDH/E Describe impact of social determinants on health Identify mechanisms and barriers that exist in integrating SDH/E screening into clinical workflow Identify several ways you can help reduce health inequities Outline a framework for clinical interventions around social determinants of health and social determinants of equity Recognize at least two causes of health disparities in the US and around the world Synthesize population health data to develop a clinical workflow around social determinants of health and social determinants of equity |

4. *Malnutrition and Obesity*: Malnutrition results from eating a diet in which one or more nutrients are either not enough, or too much, such that the diet causes health problems. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Obesity rates and co-occurring conditions such as diabetes are increasing throughout the world, and there is a growing recognition that effective primary and preventive care hinges on appropriate nutrition and adequate exercise.

- Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed:

| Malnutrition and Obesity | | |
|--------------------------|--|---|
| Course | Instructional Methods | Assessment Methods |
| FMS 501 | <ul style="list-style-type: none"> Case-Based Instruction/Learning | <ul style="list-style-type: none"> Clinical Documentation Review |
| FMS 502 | <ul style="list-style-type: none"> Demonstration | <ul style="list-style-type: none"> Clinical Performance Rating / Checklist |
| FMS 511 | <ul style="list-style-type: none"> Role Play/Dramatization | <ul style="list-style-type: none"> Exam - Institutionally Developed, Clinical Performance |
| FMS 512 | <ul style="list-style-type: none"> Discussion, Small Group (12 or less) | <ul style="list-style-type: none"> Exam - Institutionally Developed, Written/ Computer-based |
| FMS 513 | <ul style="list-style-type: none"> Discussion, Large Group (more than 12) | <ul style="list-style-type: none"> Exam - Institutionally Developed, Written/ Computer-based |

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| | <ul style="list-style-type: none"> • Peer Teaching • Reflection • Clinical Experience - Ambulatory • Concept Mapping • Independent Learning • Patient Presentation - Learner | <ul style="list-style-type: none"> • Exam – Nationally Normed / Standardized, Subject • Multisource Assessment • Narrative Assessment • Oral Patient Presentation • Participation • Peer Assessment • Portfolio-Based Assessment • Research or Project Assessment • Self-Assessment |
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2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem:

| Malnutrition and Obesity | |
|--------------------------|---|
| Course | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • List the body's essential nutrients |
| FMS 502 | <ul style="list-style-type: none"> • Describe the biochemical role of vitamin B-12, folate, and key minerals in red blood cell production |
| FMS 511 | <ul style="list-style-type: none"> • Explain why nutrition is an important aspect of chronic kidney disease management |
| FMS 512 | <ul style="list-style-type: none"> • Define malnutrition and key indicators for assessing nutritional status • Define the epidemiology of, and risk factors associated with, Type 2 diabetes mellitus (T2DM) • Describe basal metabolic rate (BMR) versus resting metabolic rate (RMR) and their utilization in determining caloric needs for patients across life stages, gender, and activity level • Describe how obesity contributes to increased morbidity and mortality • Describe nutrition, physical activity, and lifestyle recommendations for groups at risk for T2DM • Describe the clinical manifestations, diagnosis and treatment of fat-soluble vitamin deficiencies (vitamins A, D, E and K) • Describe the clinical manifestations, diagnosis and treatment of mineral deficiencies (iron, zinc, copper and magnesium) • Describe the clinical manifestations, diagnosis and treatment of water-soluble vitamin deficiencies (vitamin C, folate and niacin) • Describe the components of parenteral nutrition, monitoring parameters, and management • Describe the hormones involved in appetite regulation (their origins and mechanisms of action) and describe clinical conditions related to abnormal amounts of these hormones • Describe the interprofessional collaboration required between the physician, pharmacist, dietitian, and nurse in managing parenteral nutrition • Describe the roles of genetic and environmental factors in the development of obesity • Describe the unique features of medical nutrition therapy • Differentiate various 'fad diets' related to obesity and T2DM, and review the evidence • Discuss the importance of the nutrition focused physical exam as part of the nutrition assessment and evaluation for protein calorie malnutrition • Discuss the indications, delivery method, and mode of delivery for enteral nutrition support • Distinguish between protein calorie malnutrition, sarcopenia, and cachexia • Evaluate the advantages, disadvantages, indications, and contraindications for gastric versus pyloric feeding routes • Examine calorie requirements, macronutrient distribution, and meal planning/timing strategies for obesity and T2DM • Examine the rationale of using modified or mechanically altered diets to meet nutritional requirements • Explain the impact of malnutrition on the individual and healthcare outcomes • Explain the role of carbohydrates (CHO), protein, and fats in the diet and review Acceptable Macronutrients Distribution Ranges (AMDRs) across life stages and gender • Explain the role of weight loss, including bariatric surgery in the treatment of Type 2 diabetes mellitus • Explain the roles and responsibilities of other healthcare providers (medicine and dietitians) and how the team works together to provide care • Explain the therapeutic goals for parenteral nutrition, including end points, response to treatment, and |

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| | <p>treatment complications</p> <ul style="list-style-type: none"> • Explore indications and contraindications for parenteral nutrition support • Observe a head to toe nutrition focused physical exam to assess for loss of muscle mass and adipose tissue and identification of micronutrient deficiencies • Outline common disease states/conditions requiring intervention from a registered dietitian nutritionist (RD/RDN) • Outline the components of a treatment program for obesity • Outline the role of biochemical data in relation to nutrition status evaluation • Review dietary intake standards (DRI, RDA, AI, UL) and nutritional considerations across life stages and gender • Review the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) practice guidelines for parenteral nutrition support • Review the pathophysiologic mechanisms of obesity as contributors to glucose dysregulation and the development of Type 2 diabetes mellitus • Summarize the role of the registered dietitian nutritionist (RD/RDN) in various clinical settings and as member of the interdisciplinary team |
| FMS 513 | <ul style="list-style-type: none"> • Outline current recommended screening tests and standard practices of prenatal care |

5. *Cost and Quality of Care*: Medicine operates within a complex system of regulation and financing. A variety of incentives and penalties require physicians to evaluate quality of care, justify healthcare expenditures, and link the type and level of clinical intervention to community health outcomes.

1. Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed:

| Cost and Quality of Care | | |
|--------------------------|--|--|
| Course | Instructional Methods | Assessment Methods |
| FMS 501 | <ul style="list-style-type: none"> • Case-Based Instruction/Learning | <ul style="list-style-type: none"> • Clinical Documentation Review |
| FMS 503 | <ul style="list-style-type: none"> • Clinical Experience - Ambulatory | <ul style="list-style-type: none"> • Clinical Performance Rating / Checklist |
| FMS 511 | <ul style="list-style-type: none"> • Concept Mapping | <ul style="list-style-type: none"> • Exam - Institutionally Developed, Clinical Performance |
| FMS 513 | <ul style="list-style-type: none"> • Demonstration | |
| LMH 501 | <ul style="list-style-type: none"> • Discussion, Large Group (more than 12) | <ul style="list-style-type: none"> • Exam - Institutionally Developed, Written/ Computer-based |
| LMH 511 | <ul style="list-style-type: none"> • Discussion, Small Group (12 or less) | |
| MED CLIN 524 | <ul style="list-style-type: none"> • Independent Learning | <ul style="list-style-type: none"> • Exam – Nationally Normed / Standardized, Subject |
| LMH 521 | <ul style="list-style-type: none"> • Patient Presentation - Learner | |
| LMH 522 | <ul style="list-style-type: none"> • Peer Teaching • Reflection • Role Play/Dramatization | <ul style="list-style-type: none"> • Multisource Assessment • Narrative Assessment • Oral Patient Presentation • Participation • Peer Assessment • Portfolio-Based Assessment • Research or Project Assessment • Self-Assessment |

2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem:

| Cost and Quality of Care | |
|--------------------------|---|
| Course | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> Describe barriers to accessing healthcare as related to insurance |
| FMS 503 | <ul style="list-style-type: none"> Describe the impact of social determinants of health during epidemics and pandemics Define triage and provide examples where triage decisions have been made based on limited resources that required physicians to decide who received life-sustaining treatment and who did not Identify and explain the ethical principles involved in triage decision-making Explore the emotional burden physicians and other healthcare team members may bear when making difficult triage decisions |
| FMS 511 | <ul style="list-style-type: none"> Discuss the process for non-citizens to obtain access to dialysis Review rehabilitation options after a stroke |
| FMS 513 | <ul style="list-style-type: none"> Describe the impact of social determinants of health during epidemics and pandemics Define triage and provide examples where triage decisions have been made based on limited resources that required physicians to decide who received life-sustaining treatment and who did not Identify and explain the ethical principles involved in triage decision-making Explore the emotional burden physicians and other healthcare team members may bear when making difficult triage decisions |
| LMH 501 | <ul style="list-style-type: none"> Acknowledge the importance of continuous quality improvement in health care systems |
| LMH 511 | <ul style="list-style-type: none"> Describe the timeline of the development of the US Healthcare System Compare and contrast the timeline of the US health system development with other developed nations' health care systems Identify key historical markers in US healthcare that inform our current state Define risk, risk pool, and actuarial data Discuss the variety of types of health insurance plans available in the U.S. Contrast the U.S. health insurance plans with the options in other developed countries Diagram the payment structures in the U.S. health delivery system Compare and contrast payment of employer based, individual, and government health insurances Describe models of reimbursement (fee for service, capitation, bundled payments, chronic care management, performance-based, and accountable care organizations) Discuss the past, present and future efforts to change payment models Describe the findings of the Institute of Medicine (IOM) Report on Patient Safety and Quality Define the components of the triple aim Describe steps of Continuous Quality Improvement Diagram the relationship between cost of care, mortality, and access to primary care Describe how regular citizens can influence the healthcare process Describe the most common institutional systems involved in health delivery in the US (e.g. Large regional non-profit health system, regional Federally Qualified Health Center, large local multispecialty medical group, rural health district, etc.) List the benefits and limitations that are associated with each institutional system Describe the niche/-space that the particular institutional health system occupies Compare and contrast care delivery methods Diagram the way with which a physician fee schedule is created Contrast the billing of procedures with the billing of visits List the components of visit billing Discuss changes in billing requirements over time and predict future changes in billing requirements Describe the coding and billing cycle as manifest on a patient's explanation of benefits (EOB) Describe libertarian arguments for limiting redistribution of economic resources in order to pay for others' health care Describe liberal arguments grounded in fair equality of opportunity for providing some access to health care for all members of a just society Describe arguments for and against grounding access to health care in claims about human rights |

| | |
|-----------------|---|
| | <ul style="list-style-type: none"> • Describe arguments for universal access to health care grounded in objections to “free-riding.” • Outline the basic concern about exponential growth rates in the cost of health care in the U.S. and comparatively poorer health outcomes despite disproportionate spending • Explore proposed explanations of dramatic cost increases in health care and their connection to physician behavior • Define overtreatment and its implications for patients (risk with little or no corresponding benefit) and for the health care system • Describe physicians’ individual and collective responsibilities with respect to health care cost control • Differentiate ‘business intelligence’ and ‘predictive analytics’ • Discuss potential ethical concerns with the application of big data to healthcare • Define regulation and discuss its value • Identify the areas of health care that benefit from or require regulation • Differentiate between self and governmental regulation |
| MED CLIN 524 | <ul style="list-style-type: none"> • Define triage and provide examples where triage decisions have been made based on limited resources that required physicians to decide who received life-sustaining treatment and who did not • Explore the emotional burden physicians and other healthcare team members may bear when making difficult triage decisions • Describe the impact of social determinants of health during epidemics and pandemics • Identify and explain the ethical principles involved in triage decision-making • Identify patient safety and quality improvement opportunities as appropriate • Evaluate health systems’ responses to the COVID-19 pandemic and identify the principles that guide their decisions • Contrast world governmental responses to the COVID-19 pandemic and identify potential explanations for differences in response • List examples of how local, state, and federal epidemiologist are involved in the Covid-19 pandemic • Identify patient safety and quality improvement opportunities as appropriate • Identify and address social determinants that impact an individual child's health and the health of the population of children |
| LMH 521 | <ul style="list-style-type: none"> • Test changes on a small scale using the Plan-Do-Study-Act (PDSA) cycle • Identify the major contributing components of healthcare waste • Connect how the pursuit of high-value care for patients supports the professionalism of clinicians • Describe how to establish and track measures of improvement during the “plan” and “do” phase of PDSA • Explain how to learn from data during the “study” phase of PDSA • Explain how to increase the size and scope of subsequent test cycles based on what you’re learning during the “act” phase of PDSA • Identify the key elements of an effective aim statement • Identify three kinds of measures: process measures, outcome measures, and balancing measures • Use change concepts and critical thinking tools to come up with good ideas for changes to test • Describe common challenges for health care systems around the world • Define ‘value’ for patients • List the six dimensions of health care, and the aims for each, outlined by the Institute of Medicine (IOM) in 2001 • Explain the value of improvement science in health care • List and describe the common tools used to improve patient safety • Evaluate the different approaches to patient safety in the variety of clinical environments encountered in care provision • Compare and contrast patient safety tools and describe situations where each may be most useful in reducing medical error • Identify, in collaboration with colleagues, a problem within the clinical environment that could be improved • Identify and develop measurements to support improvement efforts with an improvement team • Create an AIM statement in collaboration with colleagues • Define ‘health care waste’ • Describe different types of measures of value and when they would be used |

| | |
|---------|--|
| | <ul style="list-style-type: none"> • Define the measurement of ‘patient outcomes’ as they relate to value-based health care • Develop an approach to customize screening recommendations to an individual patient and his/her unique risk factors, values, and concerns • Examine resources for defining and measuring patient outcomes • Describe different types of measures and when they would be used • Identify the reasons for collecting patient-reported outcomes • Apply a measures framework to evaluate the success of health care value programs from the perspective of patient outcomes • Appreciate and reflect on how patient outcomes define physicians’ success • Review the concepts of sensitivity, specificity and predictive values and their application to high value care decision-making • Apply EBM concepts to support high value care decisions when considering diagnostic and screening tests • Explore the benefits and harms of routine screening • Describe the history of the patient safety movement • Apply concepts to support high value care decisions when considering diagnostic and screening tests • Describe the principles of patient safety • Describe the relationship between human factors and system issues in medical errors • List the classifications of medical errors • Describe methods of analyzing adverse events • Compare and contrast medical errors with other high-risk industries • List the common tools used to reduce medical errors • Describe the strength and weakness of patient safety tools and when each might be optimal • Communicate strategies for improving patient safety and quality care to team members • Reflect on the causes of waste and inefficiencies in health care • Create PDCA cycle and collaborate on its development |
| LMH 522 | <ul style="list-style-type: none"> • Describe the three components of the IHI Triple Aim for populations • Explain the responsibilities of clinicians and health care systems in optimizing population-level outcomes with available resources • Describe the determinants of the overall health of a population, and the relationship of health care quality and safety to population health • Provide examples of population-level interventions designed to improve overall health and reduce costs of care • Synthesize population health data to develop a clinical workflow around social determinants of health and social determinants of equity |

7.6 Cultural Competence and Health Care Disparities

The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process. The medical curriculum includes instruction regarding the following:

- The manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments
- The basic principles of culturally competent health care
- Recognition of the impact of disparities in health care on medically underserved populations and potential solutions to eliminate health care disparities
- The knowledge, skills, and core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensional and diverse society

Supporting Data

| Table 7.6-1 Cultural Competence | |
|--|--|
| Provide the names of courses and clerkships that include objectives related to cultural competence in health care. For each, list the specific topic areas covered. Schools using the AAMC Tool for Assessing Cultural Competence Training (TACCT) may use the “Domains” table as a source for these data. | |
| Course/Clerkship | Topic Area(s) Covered |
| FMS 501 | Definitions of cultural humility, race, ethnicity, culture; health equity; gender equity; social determinants of health; understanding and self-assessment of implicit bias; epidemiology of populations; epidemiology of disparities, dual process theory and bias; defining structural competency; valuing empathy; disability health disparities; professionalism and respect; diversity of Washington state populations represented in case-based curriculum; Native health and autonomy |
| FMS 502 | Racism and racial health disparities; gender identity; caring for patients from other cultures; understanding structural vulnerability; research ethics; valuing empathy, professionalism and respect; diversity of Washington state populations represented in case-based curriculum. |
| FMS 503 | Sexism and gender-based disparities; strategies to address bias; addressing physician-patient power imbalance; framework to assess and address health inequities in the community; evaluate health disparities through the literature, evaluate social determinants of health and health equity; valuing empathy, professionalism and respect; diversity of Washington state populations represented in case-based curriculum. |
| FMS 511 | LGBTQ+ health and health disparities; valuing empathy, professionalism and respect; diversity of Washington state populations represented in case-based curriculum. |
| FMS 512 | Valuing empathy, professionalism and respect; bystander effect; health literacy; diversity of Washington state populations represented in case-based curriculum. |
| FMS 513 | Communication with interpreters; disability health disparities; valuing empathy, professionalism and respect; diversity of Washington state populations represented in case-based curriculum. |
| LMH 511 | Immigration status; evaluate health disparities through the literature; evaluate social determinants of health and health equity; |
| LMH 512 | Strategies for and responding to bias in the workplace; addressing physician-patient power imbalance; |
| LMH 522 | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |
| LMH 523 | Propose community health intervention; manage the impact of bias; recognize institutional cultural issues. |

| | |
|----------------|--|
| MEDCLIN 521 | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |
| MEDCLIN 522 | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |
| MEDCLIN 523 | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |
| MEDCLIN 524 | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |
| Year 4 Courses | Screening for structural vulnerability, evaluation of patient panel for social determinants of health, health literate communication, identify community beliefs and health practices, develop community partnering strategies |

| Table 7.6-2 Health Disparities, Demographic Influences, and Medically Underserved Populations | | | |
|--|--|---|--|
| Provide the names of courses and clerkships where explicit learning objectives related to the listed topics areas are taught and assessed. For each course/clerkship indicate "X" which area(s) is/are included. | | | |
| Course/Clerkship | Topic Area(s) Covered | | |
| | Identifying and Providing Solutions for Health Disparities | Identifying Demographic Influences on Health Care Quality and Effectiveness | Meeting the Health Care Needs of Medically Underserved Populations |
| FMS 501 | X | X | X |
| FMS 502 | X | X | X |
| FMS 503 | X | X | X |
| FMS 511 | X | X | X |
| FMS 512 | X | X | X |
| FMS 513 | X | X | X |
| LMH 511 | X | X | X |
| LMH 512 | X | X | X |
| LMH 522 | X | X | X |
| LMH 523 | X | X | X |
| MEDCLIN 521 | X | X | X |
| MEDCLIN 522 | X | X | X |
| MEDCLIN 523 | X | X | X |
| MEDCLIN 524 | X | X | X |
| Year 4 Courses | X | X | X |

| Table 7.6-3 General Medical Education - Preparation for Residency | | | | | |
|---|------------|--------------|------------|--------------|------------|
| Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who <i>agree/strongly agree</i> (aggregated) that they are prepared in the following area to begin a residency program: <i>Prepared to care for patients from different backgrounds.</i> | | | | | |
| AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
| School % | National % | School % | National % | School % | National % |
| N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will be available beginning in 2021.

Table 7.6-4 Adequacy of Education

Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education in caring for patients from different backgrounds. Add tables as needed for additional relevant survey questions.

| Medical School Class | Number of Total Responses to this item | Number and % of N/A Responses | | Number and % of combined Dissatisfied and Very Dissatisfied Responses | | Number and % of Neutral Responses | | Number and % of combined Satisfied and Very Satisfied Responses | |
|----------------------|--|-------------------------------|------|---|------|-----------------------------------|------|---|------|
| | | N | % | N | % | N | % | N | % |
| M1 ⁺ | 78 | 11 | 14% | 2 | 2% | 11 | 14% | 54 | 69% |
| M2 ⁺ | 55 | 0 | 0% | 15 | 27% | 11 | 20% | 29 | 53% |
| M3 ⁺ | 58 | 0 | 0% | 7 | 12% | 17 | 29% | 34 | 59% |
| M4 | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |
| Total | 191 | 11 | 6% | 24 | 13% | 39 | 20% | 117 | 61% |

⁺The ISA team used a 5-point scale that included a “neutral” response for the ISA survey. Detailed information about student responses to this question can be reviewed in the attached ISA report.

*There were no M4 students at the time of the ISA.

Narrative Response

- a. Provide two examples of how the curriculum prepares medical students to be aware of their own gender and cultural biases and those of their peers and teachers.

Below are two examples of where cultural, gender, and other biases are addressed in the curriculum.

Example 1: Bias

FMS 502: Art and Practice of Medicine Large group learning activity

Session objectives:

- Apply cultural humility to clinical practice
- Introduce personal bias, its effect on medicine and practice anti-biasing techniques
- Evaluate language fluency and health inequities
- Demonstrate sensitivity toward all patients, demonstrating empathy while recognizing unique life challenges and experiences, values, cultures, and beliefs
- Identify and elucidate one's own biases, beliefs and values that may cause conflicts during medical encounters

This session consists of a 50-minute large group active learning session followed by a 110-minute small group session. Prior to the session students are asked to complete an Implicit Association Test (IAT). The large group session engages students in a group exercise to examine bias. Implicit and explicit bias terminology and concepts are defined and placed in the context of Kahneman’s cognitive process model. A theoretical model of how implicit bias affects patient care is then examined. The following anti-biasing techniques are then reviewed:

- Personalization
- Increased positive contact
- Mindfulness
- Counter-stereotyping
- Empathy
- Structural context

The large group session ends by addressing the concepts of cultural humility and structural competency.

The small group session is made up of four cases that involve a form of implicit or explicit bias. Small groups are asked to address the scenario and apply anti-biasing techniques to minimize the harms of bias.

Example 2: Bias in the workplace

LMH 512: Large group active learning session

Session objectives:

- Understand bystander effect on addressing implicit and explicit bias
- Apply tools for interrupting bias
- Demonstrate sensitivity toward all patients, demonstrating empathy while recognizing unique life challenges and experiences, values, cultures, and beliefs
- Identify and elucidate one's own biases, beliefs and values that may cause conflicts during medical encounters

This session consists of a 110-minute large group active learning session. Prior to the session students are asked to perform additional Implicit Association Tests (IAT) to identify their own biases. The session begins with an interactive role play that highlights bias in healthcare. The concept of “bystander effect” and tools for interrupting bias are reviewed. Students will then spend time in small groups applying these tools to clinical cases. The students will then present their approach to disrupting bias to the larger group. The session then closes with review of concepts and setting expectations for clinical rotations and reporting of bias and mistreatment.

7.7 Medical Ethics

The faculty of a medical school ensure that the medical curriculum includes instruction for medical students in medical ethics and human values both prior to and during their participation in patient care activities and require medical students to behave ethically in caring for patients and in relating to patients' families and others involved in patient care.

Supporting Data

| Table 7.7-1 Medical Ethics | | | |
|---|--|-----------------|--------|
| For each topic area listed below, indicate whether the topic is taught separately as an independent required course and/or as part of a required integrated course and when in the curriculum these topics are included by placing an "X" in the appropriate columns. | | | |
| Topic | Phases where the topic areas are taught/assessed | | |
| | Pre-clerkship Phase | Clerkship Phase | Other* |
| Biomedical ethics: integrated courses | X | X | |
| Ethical decision-making: integrated courses | X | X | |
| Professionalism: integrated courses | X | X | |

| Table 7.7-2 General Medical Education - Preparation for Residency | | | | | |
|---|------------|--------------|------------|--------------|-----------|
| Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who <i>agree/strongly agree</i> (aggregated) that they are prepared in the following area to begin a residency program: <i>I understand the ethical and professional values that are expected of the profession.</i> | | | | | |
| AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
| School % | National % | School % | National % | School % | National% |
| N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will be available beginning in 2021.

Narrative Response

- a. Describe the method(s) used to assess medical students' ethical behavior in the care of patients. How are breaches of ethical behaviors in patient care by medical students identified and remediated?

Professionalism and ethical behavior are assessed by faculty through direct observation using Workplace-Based Assessments (WBAs), OSCEs, written examinations, and through the completion of course assignments such as patient write-ups and student reflection exercises. Assessment tools contain a section dedicated specifically to professional behavior and ethical conduct. Peer assessment is also used in small group learning environments to assess ethical behavior. In-the-moment identification of ethical breaches in patient care may also be identified through notification of the Assessment Office, or through a direct communication between clinical faculty and the assigned Associate Dean of Clinical Education (ADCE) and/or Site Director.

Using the methods outlined, the College identifies breaches in ethical behavior quickly to address the concern, ensure patient safety, and apply the needed targeted skills development or remediation. For minor issues, such as punctuality, late or incomplete assignments, late patient logs, etc., the student's Associate Dean of Clinical Education, the Course Director, and the Clinical Coach, in consultation with the Senior Associate Dean for Student Affairs (SADSA), develop a targeted skills development plan for the student. For egregious events or when patterns of professionalism and/or ethical concerns have been identified, the Assessment Unit notifies the student's Associate Dean for Clinical Education, the Chair of the SEPAC and the Assistant Dean for Student Affairs. The SEPAC Chair may activate the Professionalism Excellence Advisory Committee (PEAC) to investigate. After investigation, the PEAC will provide the SEPAC Chair with a suggested remediation plan. This plan will be developed and implemented with the support of the Associate Dean for Curriculum, the Associate Dean for Accreditation, Assessment and Evaluation, the Course Director, and the student's Associate Dean for Clinical Education in consultation with the Office of Student Affairs. While all professionalism or ethical breaches are referred to the SEPAC, the referral is immediate if the breach is such that dismissal from the MD program may be warranted.

Supporting Documentation

1. Instruments used in the formative and/or summative assessment of medical students' ethical behavior during the pre-clerkship and clinical clerkship phases of the curriculum.

Appendix 7-07-01 Sample MCQs from the Biomedical Ethics session

Appendix 7-07-02 OSCE Scoring Instrument (backside)

Appendix 7-07-03 Clinical Skills WBA Form Year 1

Appendix 7-07-04 Clinical Skills WBA Form Year 2

Appendix 7-07-05 APM WBA Year 1

Appendix 7-07-06 APM WBA Year 2

Appendix 7-07-07 LIC WBA 01a History Taking

Appendix 7-07-08 LIC WBA 01b Physical Examination

Appendix 7-07-09 LIC WBA 02 Differential Diagnosis

Appendix 7-07-10 LIC WBA 08 Providing and Receiving Handover of Care

Appendix 7-07-11 LIC WBA 11 Obtain Informed Consent

Appendix 7-07-12 LIC WBA 13 Safety and Improvement

7.8 Communication Skills

The faculty of a medical school ensure that the medical curriculum includes specific instruction in communication skills as they relate to communication with patients and their families, colleagues, and other health professionals.

Supporting Data

| Table 7.8-1a Communication Skills - Communicating with Patients and Patients' Families | |
|--|---|
| Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship | |
| Course/Clerkship | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • Demonstrate appropriate communication skills and behaviors for all interactions with patients, patients' families, and the community |
| FMS 502 | <ul style="list-style-type: none"> • Demonstrate appropriate communication skills and behaviors for all interactions with patients, patients' families, and the community <i>when under duress</i> |
| FMS 503 | <ul style="list-style-type: none"> • Demonstrate appropriate communication skills and behaviors <i>for all interactions</i> with patients, patients' families, and the community <i>when under duress</i> |
| FMS 511 | <ul style="list-style-type: none"> • Interpret and appropriately respond to others' emotions, including patients, family members, peers, instructors, and interprofessional team members • Analyze witnessed communication interactions and incorporate appropriate components into one's own interactions with patients, patients' families, and the community |
| FMS 512-513 | <ul style="list-style-type: none"> • Interpret and appropriately respond to others' emotions, including patients, family members, peers, instructors, and interprofessional team members • Analyze witnessed communication interactions and incorporate appropriate components into one's own interactions with patients, patients' families, and the community |
| FMS 521-524 | <ul style="list-style-type: none"> • Interpret and appropriately respond to people's emotions in the clinical and real-world setting • Utilize active and reflective listening approaches to tailor communication to an appropriate level of understanding for patients, and their families |

| Table 7.8-1b Communication Skills - Communicating with Physicians as Part of the Medical Team | |
|--|---|
| Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship | |
| Course/Clerkship | Learning Objectives |
| FMS 501-503 | <ul style="list-style-type: none"> • Demonstrate proper oral and written skills in communicating with peers and instructors |
| FMS 511 | <ul style="list-style-type: none"> • Interpret and appropriately respond to others' emotions, including patients, family members, peers, instructors, and interprofessional team members • Demonstrate fluid and cohesive oral and written skills in communicating with peers and instructors |
| FMS 512-513 | <ul style="list-style-type: none"> • Interpret and appropriately respond to others' emotions, including patients, family members, peers, instructors, and interprofessional team members • Demonstrate fluid and cohesive oral and written skills in communicating with peers and instructors that enable involvement and learning of others |
| FMS 521-524 | <ul style="list-style-type: none"> • Interpret and appropriately respond to people's emotions in the clinical and real-world setting • Present accurate and relevant information demonstrating judgment in citing the sources if questioned • Communicate clearly, fluidly, and cohesively and able to respond appropriately to some questions |

| Table 7.8-1c Communication Skills - Communicating with Non-Physician Health Professionals as Part of the Health Care Team) | |
|--|---|
| Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship | |
| Course/Clerkship | Learning Objectives |
| FMS 501 | <ul style="list-style-type: none"> • Communicate one's roles and responsibilities clearly to patients, families, community members, and other professionals. • Communicate with team members to clarify each member's responsibility in executing components of a treatment plan or public health intervention. |
| FMS 502 | <ul style="list-style-type: none"> • Engage diverse professionals who complement one's own professional expertise, as well as associated resources, to develop strategies to meet specific health and healthcare needs of patients and populations. |
| FMS 503 | <ul style="list-style-type: none"> • Communicate information with patients, families, community members, and health team members in a form that is understandable, avoiding discipline-specific terminology when possible. • Listen actively and encourage ideas and opinions of other team members. |
| FMS 511-513 | <ul style="list-style-type: none"> • Interpret and appropriately respond to others' emotions, including patients, family members, peers, instructors, and interprofessional team members |
| FMS 521-524 | <ul style="list-style-type: none"> • Interprets and appropriately responds to people's emotions in the clinical and real-world setting |

| Table 7.8-2 General Medical Education - Preparation for Residency | | | | | |
|--|------------|--------------|-----------|--------------|------------|
| Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who <i>agree/strongly agree</i> (aggregated) that they are prepared in the following area to begin a residency program: <i>Communication skills necessary to interact with patients and health professionals.</i> | | | | | |
| AAMC GQ 2018 | | AAMC GQ 2019 | | AAMC GQ 2020 | |
| School % | National % | School % | National% | School % | National % |
| N/A* | N/A* | N/A* | N/A* | N/A* | N/A* |

*GQ Data will be available beginning in 2021.

Narrative Response

- a. Describe one specific educational activity in the curriculum, including the location in the curriculum and the method(s) of student assessment, for each of the following topic areas:
 1. Communicating with patients and patients' families
 2. Communicating with physicians as part of the medical team
 3. Communicating with non-physician health professionals as members of the health care team

1. Communicating with patients and patients' families: Beginning in the pre-clerkship phase of the curriculum, the skills in communicating with patients and patients' families are highly prioritized. One specific educational activity that highlights patient-communication skills is the clinical skills workshop piece of the Art and Practice of Medicine component in the Foundations of Medicine courses. In these workshops, students practice the relevant history-gathering, physical examination, and patient communication techniques with standardized patient actors, who provide in-the-moment feedback to the students. Following the workshops, students self-review videos of their workshops, identifying areas for improvement. In small group environments with faculty, students pair up and watch each other's videos, providing formative feedback on communication styles and potential pitfalls. Faculty also engage in this formative feedback and assist students' learning with demonstrations and role plays regarding specific communication skills that may have been challenging in the workshop (e.g. appropriate signposting prior to asking questions related

to sexual history). The faculty and students also use formative Workplace-Based Assessments as a guide to offer feedback on students' recorded communication skills.

Communication skills are assessed both formatively and summatively, in the Objective Structured Clinical Exams (OSCEs), present at the end of all but the first course.

2. Communicating with physicians as part of the medical team: While oral presentation and documentation skills are first taught in the pre-clerkship phase, this example will focus on the skill as it is developed and assessed in the Longitudinal Integrated Clerkship (LIC). Oral presentations are practiced as a part of the curriculum starting in the Art and Practice of Medicine, and in the LIC are broadened into the daily clinical environment. The Academic Half Days in the LIC are one area in which oral presentation skills are honed, but the learning derives from students consistently presenting patients to their preceptors across specialties and clinical environments. To learn and to be assessed, students use the Oral Presentation Workplace-Based Assessment (appendix 7-08-01) as a gauge for the appropriate level and expectations for their oral presentations. These assessments serve to provide a developmental trajectory for students on their ability to communicate with physicians as a part of the medical team.

3. Communicating with non-physician health professionals as members of the health care team: Communicating with non-physician health professionals is a core theme of the curriculum. Interprofessional educational experiences are introduced in the first year of the pre-clerkship curriculum. One example is an early interprofessional workshop on team communication, which brings together medical, nursing, and pharmacy students to engage in learning and practicing approaches to team communication. This skill is highlighted again in the Longitudinal Integrated Clerkship (LIC) both in the daily clinical activities as well as in the Academic Half Day workshops. The assessment approaches in the pre-clerkship phase are through student reflections, and in the LIC through Workplace-Based Assessments focused on interprofessional collaboration and communication.

7.9 Interprofessional Collaborative Skills

The faculty of a medical school ensure that the core curriculum of the medical education program prepares medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These curricular experiences include practitioners and/or students from the other health professions.

Supporting Data

| Table 7.9-1 Interprofessional Collaborative Skills (ICS) in the Curriculum | | | | | |
|---|---|--|--|--|---|
| Complete the following table with information on required experiences where medical students are brought together with students and/or practitioners from other health professions to learn to function collaboratively on health care teams with the goal of providing coordinated services to patients. Add rows as needed. | | | | | |
| Name and Curriculum Phase of the Course or Clerkship Where the Experience Occurs | Learning Objectives of the IPCS Experience | Duration of the Experience (e.g., single session) | Setting(s) Where the Experience Occurs | Other Health Professions Students (S) or Practitioners (P) | Assessment Method(s) |
| FMS 501 – focus on roles and responsibilities of various health professions | <p>Define one’s professional scope of practice.</p> <p>Communicate one’s roles and responsibilities clearly to patients, families, community members, and other professionals.</p> <p>Recognize one’s limitations in skills, knowledge, and abilities.</p> <p>Explain the roles of other professional members of the patient care team</p> <p>Explain the roles and responsibilities of other providers and how the team works together to provide care, promote health, and prevent disease.</p> <p>Communicate with team members to clarify each member’s responsibility in executing components of a treatment plan or public health intervention.</p> | Single 2-hour session | <p>Classroom</p> <p>Small IP group case-based discussion with practitioners (medicine, nursing, pharmacy, DNP, and registered dietician)</p> | Nursing (BSN and DNP), pharmacy, and registered dietician – students and practitioners | <p>Collaborative team worksheet – see attached appendix 7-09-1</p> <p>Modified SPICE* tool to assess knowledge and attitudes towards collaboration with other health team members</p> |
| FMS 502 – focus on roles and responsibilities | <p>Engage diverse professionals who complement one’s own professional expertise, as well as associated resources, to develop strategies to meet specific health and healthcare needs of patients and populations.</p> <p>Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions and the impact these factors can have on health outcomes.</p> | Single, 2-hour session | Hospital lab and medical lab classroom equipped with teaching microscopes | Medical laboratory students and practitioners, and faculty | |

| | | | | | |
|---|---|------------------------------|-------------------------------|--|--|
| <p>FMS 503 – focus on interprofessional communication; error disclosure</p> | <p>Communicate information with patients, families, community members, and health team members in a form that is understandable, avoiding discipline-specific terminology when possible. Listen actively and encourage ideas and opinions of other team members. Discuss a medical error as an interprofessional (IP) team in a blame-free way. Plan for a disclosure of a medical error as an IP team. Disclose a medical error to a simulated patient as an IP team with honesty, compassion, and respect for team members. Articulate each team member’s role in the patient’s care and each team member’s contribution to a medical error.</p> | <p>Single 2-hour session</p> | <p>Classroom</p> | <p>Nursing (BSN and DNP), pharmacy students and faculty</p> | <p>Observation of role play followed by debrief (formative assessment) Modified SPICE tool administered via Qualtrics survey to assess attitudes</p> |
| <p>FMS 511 – focus on values and ethics</p> | <p>Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions and the impact these factors can have on health outcomes. Reflect on and describe one’s own preferences and values regarding end of life care. Demonstrate shared decision-making when discussing end of life care with patients, families, and other health team members.</p> | <p>Single 2-hour session</p> | <p>Classroom</p> | <p>Nursing (BSN and DNP), pharmacy students and faculty</p> | <p>Observation of role play followed by debrief (formative assessment) Modified SPICE tool administered via Qualtrics survey to assess attitudes</p> |
| <p>FMS 512 – focus on teams and teamwork; collaborative care of patients with chronic pain that use opioids</p> | <p>Describe the roles and responsibilities of the healthcare team and how they work together to provide collaborative care to patients using opioids Utilize appropriate non-stigmatizing vocabulary when caring for patients taking or potentially misusing opioids Demonstrate expressing one’s knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions As a team, evaluate a patient for potential opioid misuse or opioid use disorder</p> | <p>Single 2-hour session</p> | <p>Classroom / simulation</p> | <p>Nursing (BSN), pharmacy, social work, physician assistant</p> | <p>Quiz Team self-assessment</p> |

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| | Differentiate between treatment options for a patient with an opioid use disorder and/or pain management Work collaboratively with healthcare team members, including the patient, to develop a plan of care for reducing opioid use and risk of overdose | | | | |
| FMS 513 – focus on roles and responsibilities | Describe how the roles and responsibilities of a physician and a physical therapist are similar and how they are different Identify benefits and challenges to interprofessional communication and collaborative care | 2 sessions; 1-hour introduction to the patient case Second session focused on collaboration with goal of improved health outcomes for patient needing physical therapy | Classroom (integrated in CBL) | Physical therapy students and practitioners | CBL WBA |
| Med Clin 521, 522, 523, 524 | Collaborate as a member of an interprofessional team | Ongoing throughout the LIC | Clinic and hospital settings Simulation labs, classrooms | Various health care team members as appropriate for each individual patient and family | WBA-9: Interprofessional team collaboration |

Supporting Documentation

1. Examples of forms used in the assessment of medical students' collaborative practice skills. For each example, list the course or clerkship in which the form is used.

Appendix 7-09-01 Interprofessional Collaborative Care Worksheet (Med Clin 521-524)

Appendix 7-09-02 CSACD Team Observation Form (Med Clin 521-524)

Appendix 7-09-03 Standardized Patient Team Rating Rubric (Med Clin 521-524)

Appendix 7-09-04 Program Evaluation Interprofessional Team-based Opioid Education (Med Clin 521-524)