Foundations Data Review Workgroup

UW School of Medicine

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Summary

After review of the student summative and course-level feedback (end-of-block surveys, end-of-phase surveys), faculty feedback (faculty survey, course director interviews), and student performance on standardized assessments (USMLE, CBSE), our group recommends that the following principles should guide development of the Foundations Phase revision for academic year 2022.

Length

- The length of Foundations should be expanded. Our group does not provide a precise number of weeks to lengthen Foundations, but we have several recommendations which suggest a need for more time overall. They are:
 - 1. We identified several areas of content which would benefit from more time (notably hematology, oncology, musculoskeletal medicine, immunology and nephrology).
 - 2. We agree with PEAC recommendation #2 regarding the need for cumulative assessments for all blocks longer than 3 weeks.
 - 3. We also agree with PEAC recommendation #3 for the need to set time aside within the curriculum for review and consolidation. We recommend talking to Clinical Guides and others with a longitudinal view of the curriculum to identify content areas where integration could maximize student learning.
 - 4. We recommend the inclusion of break periods between blocks to support student wellness.
- The length of individual blocks should also be considered and be more uniform; blocks which are 8 weeks or more in length are too long and need to be compressed or divided into shorter blocks.

Order

- Hematology should be placed prior to cardiovascular medicine, and adjacent to immunology. Good rationale exists for placement of hematology either before or after immunology.
- The labor-intensive nature of HFF and the cadaver "lifecycle" should be considered with any proposal that adjusts the order of content or Foundations block schedule

Combinations of Content

• Students would benefit from threads having a larger and more systematic/consistent presence in each block. We recommend that block and thread directors engage in a

- proactive partnership, within a framework developed and supported by Curriculum, to determine how to best teach the relevant thread material within a block.
- Students and faculty should be able to gauge student performance within a thread. Our group considered but did not reach consensus on whether thread content outside of the context of block grades could be reduced or eliminated (PEAC recommendation #8).
- As noted above, setting time aside throughout Foundations for integration and multisystem disease would be beneficial to student consolidation and holistic understanding of Foundations content

Depth and Adequacy of Specific Topics

- Consider burden of disease when determining depth of coverage of topics such as diabetes, obesity, cancer, and addiction, and increase coverage accordingly
- Offer more time in the following areas: cell biology, immunology (especially cytokines and adaptive immune response); nutrition; diabetes; oncology (especially solid tumor and cancer immunology), cell biology
- Much of the content which would benefit from more time is thread content, notably
 - Pharmacology: dedicated neuropharmacology; diabetes, gynecologic/reproductive pharmacology, MSK pharmacology
 - HFF: overall and specifically back/spine, nasal cavity, cavernous sinus and middle ear, muscles of mastication and gut anatomy, nervous system anatomy
 - Pathology: histology overall and specifically gynecologic pathology, cardiac and pulmonary pathology

Additional Considerations

The impact of Step 1 moving to a pass/fail grading program is difficult to fully anticipate but will likely change the nature of how students engage with the Foundations curriculum. The potential move of Step 1 to after Patient Care Phase would also require adjustments to Foundations curriculum, particularly the structural support dedicated to preparing students for Step 1.

Additionally, discussions of pedagogy — optimal delivery of content, standardization of resources, and relationship to commercial content and Step 1 preparation products, was not addressed by this group, although careful consideration of this aspect is critical to the success of any adjustment in curriculum.

Finally, and perhaps most important, any potential adjustment to the current Foundations calendar would necessitate additional resources, and the question of "where" in the calendar to place these additional weeks of instruction carries myriad logistical, contractual, and instructional complexities which require careful consideration and were not fully considered by this group.

Background

The US Department of Education is requiring the UW School of Medicine to adjust its quarter length to 9-13 weeks, which will shorten our current Foundations fall quarters (Term 1 and Term 3) by two weeks each. This change will take place beginning in fall 2022.

In order to implement this change in a way that improves the Foundations curriculum and supports our faculty and students, Dr. Suzanne Allen (Vice Dean of Academic, Rural and Regional Affairs) and Dr. Michael Ryan (Associate Dean for Curriculum) convened a data review workgroup made of UW faculty, staff, and leaders throughout the region to focus on reviewing student, staff, and faculty feedback on the Foundations educational experience, alongside student performance data, to help establish guiding principles for this necessary curricular adjustment.

Early in the process, a proposed set of guiding principles that identified some key areas in which improvements could potentially be made to the Foundations curriculum was assembled. (See Appendix A.) This was made available to the committee, but the workgroup felt our work would be more valuable to Dr. Ryan and Dr. Allen if we reviewed the available data independently and did not continually reference this while formulating our own recommendations regarding guiding principles. The original document also includes principles of pedagogy, which is not directly addressed by our workgroup.

Charge

This workgroup was asked to:

- 1. Keep in mind that the current curriculum is working well and this is an opportunity to make an excellent curriculum even better.
- Consider ways to improve the curriculum further in terms of overall length of
 Foundations phase, order of content, optimal combinations of content in blocks, depth
 and adequacy of coverage of specific topics, the potential need for more study time,
 more time for final examinations in all blocks, the desire for more comprehensive
 assessment approaches, and student wellness.
- 3. Review the draft guiding principles (appendix A) and make adjustments as needed to ensure that these guiding principles are data-driven, accurate and complete, fully represent the areas in need of change, and can be used to guide the development of the new Foundations phase structure.

Process

The working group was formed in the spring of 2020. At the working group's initial meeting, members agreed to divide into 4 subcommittees, each assigned to review student-level data for the following distribution of courses, with the above charge in mind, and propose guiding principles or recommendations that would improve the curriculum within these courses:

- 1. Molecular & Cellular Basis of Disease, Invaders & Defenders, Mind, Brain & Behavior, and Research Methods
- 2. Energetics & Homeostasis, Blood, Cancer & Musculoskeletal, Lifecycle, and Circulatory Systems
- 3. Pharmacology, Human Form & Function, and Histology-Pathology
- 4. Foundations of Clinical Medicine, Primary Care Practicum, and Immersion

Of note Ecology of Health and Medicine was not included in the group's work due to dedicated overview of related questions (content, structure, order, wellness) for that course is being conducted by another working group.

Prior to subcommittee presentation meetings, an additional overview meeting was held to review End-of-Foundations survey data, LCME data, and AAMC survey data (Graduation Questionnaire and Year Two Questionnaire), along with an overview of E15-E19 USMLE step 1 data and 2018-2020 CBSE data.

As much of our data was derived from student performance and experience, additional efforts were needed to obtain data regarding the faculty experience. As such the workgroup decided to perform a survey of Foundations faculty. All faculty who teach >5 hours in Foundations phase were asked to participate.

For the additional perspective of Foundations course leadership, Dr. Wang interviewed all available block and thread directors to learn more about what they believe is working well within their course and what could be improved.

The working group met 7 times with multiple additional subcommittee meetings and final recommendations were made in July of 2020.

Results

Student Data Review

At the final workgroup meeting, the members summarized their findings on Foundations length, order, combinations of content, depth and adequacy of specific topics. The group also reviewed the PEAC (Program Evaluation & Assessment Committee) Recommendations for Assessment of Foundation Blocks, which addresses final examinations and comprehensive assessment approaches. These recommendations on content, schedule, and structure are below:

Content

- Immersion/orientation should include bonding time for students. Some orientation information delivery could be done online or via other methods if needed. Students enjoy introduction to clinical skills during this period, but the group did not achieve consensus on whether the timing of clinical skills immersion should be linked to the beginning of medical school or to the time immediately prior to hospital tutorials.
- **FCM** and clinical skills training are a highlight of Foundations curriculum and current system should be largely preserved.
- MCBD should include more active learning class time to connect basic science concepts
 with clinical correlates. Biochemistry and metabolism are challenging topics with heavy
 coverage on Step 1. Students would benefit from more spaced repetition of this
 material
- I&D needs additional time for coverage of immunology and antimicrobial pharmacology, commonly ow-scoring areas on CBSE and Step 1. Immunology needs more time to adequately cover cytokines and adaptive immune response. Dermatology content is rushed and squeezed at the end. Course offers opportunity to revisit concepts multiple times in different contexts
- **CPR** is discussed in the next section on schedule/ordering. Other than scheduling/order needs, this block is often very well reviewed by students and faculty, so should not be modified significantly.
- **E&H** is well-regarded for its organization and delivery of content. Coverage of nutrition and lipids could be improved. GI content could be decoupled from Endocrine portion. Pharmacology needs more time and integration.
- **Blood & Cancer** content should be given more time (block directors suggest 1 additional week which equates to 16h in class time). Gaps exist in solid tumor and cancer immunology content.
- Musculoskeletal content needs more time: at least 3 weeks total and should contain more than one exam. MSK should also cover the back and spine and add pharmacology content.

- **MBB,** with the recommendation below to not have blocks longer than 8 weeks, may need to compress content or potentially split into two shorter blocks (i.e. Neuro and psych) to better avoid burnout at the end of the block.
- **Lifecycle** should have more coverage of gynecologic oncology and pathology. Much of the aging content is more clinical and could be moved later in the curriculum.
- Pharmacology needs more dedicated time along with better integration into curriculum. This could be partially accomplished by pre-recorded videos. MCBD, I&D and CPR integrate pharmacology well; E&H, MBB, and Lifecycles would benefit from more dedicated time and increased integration.
- **Pathology** underrepresented in Cardiac and Pulmonary portions of CPR and in Lifecycle; should be brought into Blood & Cancer (consider "Tumor Board" model)
- **HFF** should be taught as an introduction to block material if possible, which allows revisiting of the material that can be built on when teaching the physiology (ie E&H in 2020). HFF needs more lab & class time in all blocks.
- Research Methods material requires a dedicated period of time, but this content would benefit from being revisited within the context of blocks (review of epidemiology, landmark studies)
- Consider burden of disease when determining depth & extent of coverage (particularly for common disorders such as diabetes, obesity, hypertension, low back pain)
- A systematic approach to spaced repetition between blocks would promote content integration and consolidation throughout Foundations. Some ideas include:
 - A fixed number of exam questions which draw on knowledge from prior blocks
 - A dedicated number of hours within a block (? Could be in small groups) which
 review multisystem disease: e.g., a case of anemia during the renal course could
 contain content from hematology; a case of inflammatory arthritis during the
 MSK course could contain content from immunology; cancer biology could be
 revisited within organ systems)
 - Our group recommends talking to Clinical Guides and others who teach across multiple blocks proactively to identify content areas where integration could maximize student learning
 - Additionally, consider placing a multisystem course (to maximize integration and consolidation of key concepts) at the end of Foundations; this could be a replacement or restructuring of the current Foundations Capstone course
- Based on combined review of CBSE and Step 1 scores, UWSOM student performance in the following areas is relatively weak: hematology, histology, cell biology, immunology, renal, & multisystem processes

Schedule/Ordering

- Blood & Cancer material should be placed prior to cardiac content, and, if possible, adjacent to immunology (undetermined if before or after is better)
- We recommend dividing **CPR** course up to avoid length; would favor moving renal after GI for HFF dissection purposems. Additionally, it may be beneficial to add time to the renal coverage as this is commonly a low-scoring area on CBSE and Step 1.

- If we are to extend the school year, based on faculty survey there are logistical, professional, and personal concerns with transitioning to year-round instruction (at least with faculty involvement needed currently.) This burden is more pronounced for faculty who already teach longitudinally in the curriculum (threads, FCM)
- Expansion into the summer, if needed, should be mindful of fewer faculty available during the summer months
 - If coursework during summer is considered, it should be content which requires less/fewer faculty involvement. Priority should be to avoid having longitudinal faculty (thread leads, FCM faculty) teach in the summer as this time offers many their only break from teaching. Cadaver exchange in summer is also low so HFF in particular is poorly suited to year-round teaching.
- If we were to extend into summer, there is more interest based on survey results for extending into June of year 2 and not moving earlier than August 15
- Given the high degree of HFF faculty involvement in MSK, other cohorts should not also be in anatomy lab during that time. Ending the M1 year with MSK has been noted as a good fit for the "lifecycle" of the cadaver

Curricular Structure

- Single blocks that are >8 weeks are too long. Blocks > 8 weeks should be condensed or divided into multiple courses.
- The presence and assessment of thread material should be systematic and determined at a curricular rather than the block level. The implementation of this should be a collaborative effort between block and thread faculty. Some ideas of how this could look
 - a fixed percentage of time/block is dedicated to threads
 - a fixed percentage of BLOs/block is dedicated to threads
 - a fixed percentage of assessment questions/block is dedicated to threads
- We must increase our structural "diastole" in the Foundations curriculum. This would allow for more dedicated testing time, more integration/multisystem time, and accommodate yearly shifts in course schedules due to the changing academic calendar and holidays.
- We agree with PEAC Recommendation #2 that students benefit from cumulative finals and recognize that implementing this recommendation may require additional time in Foundations.

Faculty Survey

65 individual responses to the faculty survey, representing all WWAMI sites. An in-depth qualitative analysis of responses was performed by Linda Ho and is available in Appendix B.

The most frequently cited strengths of Foundations which respondents wish to preserve are small group/active learning (and, where applicable, consistency of small group facilitators, such as clinical guides), anatomy lab, and clinical skills training.

When asked "what features you would most like to change about Foundations?", the most common answers concerned the schedule: among those, the most frequent responses were to lengthen Foundations overall, followed by responses to break up longer blocks such as CPR and MBB. Respondents recommended giving Blood and Cancer and MSK more time and to be placed earlier in Foundations. The need for standardization and more uniformity between blocks was also frequently noted.

Faculty were asked to share what could be done to improve faculty experience at their site. The most common responses concerned improving faculty communication and community. This included a desire for leadership to clearly demonstrate support for faculty as well as students when conflicts arrive; for non-Seattle faculty to have more visibility and leadership in coursewide planning, and more administrative support for scheduling and learning technologies. There was further interest in faculty development in both pedagogy (small group, distance teaching) and regarding issues of diversity, race, and gender.

Block & Thread Director Interviews

Dr. Wang's conversations with block & thread directors are summarized below.

Research Methods (Bryan Kestenbaum)

- Block content is very conceptual and requires practice to develop skills
- Works best if course is not on consecutive days or modules spread too far apart
 - Consecutive days too challenging, too condensed, students cram and don't retain content
 - Spread over weeks, students lose knowledge over time if not revisited
- Ideal structure: 8 modules over 4 weeks, offered 2 modules per week
- Could add genome-wide association studies and other missing content
- Opportunity to integrate and reinforce materials in later blocks by analyzing seminal papers on risk factors, prognosis, clinical trials, etc. related to block material

Molecular & Cellular Basis of Disease (Brent Wisse)

- Block covers many different disciplines (biochemistry, genetics, molecular & cellular biology, physiology)
- Purpose and strengths:
 - Set up basic science topics for subsequent more clinical blocks

- Also aims to cover Step 1-relevant content
- Content should focus on basic mechanisms important for understanding disease processes
 - Focus on clinical context and not clinical content
- Need to improve TBL (team-based learning)
- Back and forth between delivery approach used:
 - o Compartmentalized vs spaced repetition with multiple topics each week
 - o Biochemistry too dense to teach all together
 - o Genetics also may be too much to deliver in one block

Invaders & Defenders (Meena Ramchandani & Kristen Hayward)

- Goal of block is integrated teaching approach for immunology and microbiology; prevents faculty from being siloed
- Block would overall benefit from more time, but specifically: Immunology (complicated, needs revisiting), rheumatology, dermatology (derm could be moved elsewhere if needed, although integrated as an immune defense), and threads within the block (particularly pathology and pharmacology)
- This block introduces a large amount of new terminology and vocabulary, which can be challenging for students
- Move hematology closer to immunology
- Small groups have worked well; students get exposure to wide range of faculty with strong clinical background
- Not enough time to set up basic science concepts then teach clinical content

Circulatory Systems (Andy Luks, Shobha Stack and Ashley Jefferson)

- Block is too long and needs to be shortened, possible options:
 - o Cardio and pulmonary combined into one block, and renal as a separate course
 - o Combine renal with endocrine as a 6 weeks block
 - Break into 3 different organ system courses
- Renal at end of long block leads to student fatigue and low engagement with this material
- Support having cumulative final exam
- Add time for review and consolidation of material
- Move Blood before Cardiology content
- Current amount of time for cardio content is sufficient
- Physiology of kidney is too rushed
- Need more time for integration of block material; integration could be just with cardiology and pulmonary material or on a broader scale as students move through the curriculum
- Improve integration and consolidation throughout the curriculum

Energetics & Homeostasis (Bruce Silverstein and Tracy Tylee)

- High value: patient interviews and small group case discussions
- Nutrition a problem area in GI portion (currently 1 day in block)
 - Lack of content expertise when it comes to faculty
 - Students interested in diets (not on boards) and not micronutrients (board content)
 - Consider moving weigh management/nutrition to an elective; use elective course offered in Montana as model
- Not enough time to include pharm content in sessions
 - Planning for daily pre-recorded videos on relevant Pharm (10-15 minutes each)
- Two days only for Type II diabetes/obesity a big healthcare problem that could use more time
- Current structure provides sufficient time to cover each organ in the GI system
- Teaching in small groups works well
- Goal to improve integration between GI and Endocrine portions of block
 - o Possibility with pancreas and diabetes
- Prefer GI before Endocrine
- Can bring MCBD metabolism back into the block when defect in normal physiology
 - Revisit glucose metabolism when discussing diabetes

Musculoskeletal (Brian Krasbak and Hank Pelto)

- Major ask is more time
- Additional 4 days at 4 hours per day would be sufficient
 - Possible structure: 1 week of upper anatomy, 1 week of lower extremity, 1 week of clinical cases/treatments
- Pharmacology and Histo/Path content missing
 - Would like to add exercise as a treatment for different conditions, including those presented previously in CPR and E&H (i.e. diabetes)
- Knowledge of the whole curriculum for block faculty would help with collaboration and integration across blocks

Blood & Cancer (Bill Harris and Sioban Keel)

Block is too short; would like 4 extra days at 4 hours per day (1 week)

- o Would allow staggering of small groups to next day after large lecture given
- Can avoid teaching new content in small groups
- Needs to move earlier in order of blocks before CPR and after MCBD
 - If after I&D can bring back molecular/genetics concepts taught in MCBD as example of spaced repetition
 - o If after MCBD and before I&D, solid tumor content covers some advanced concepts that could be challenging for students if too early in the curriculum

- Teaching of solid tumor oncology better after students know some organ systems
- Hesitant about having oncology as a thread
 - Difficult to integrate into each block without dedicated time
 - May get resistance from Block directors to provide needed time
- Good coverage of breast cancer in MCBD and gynecological cancers in Lifecycle; GU and CNS tumor coverage okay, lung cancers currently in B&C and not CPR
- Acute Lymphoblastic Leukemia missing from Heme portion of block
- Would like to have review sessions on Thursdays before Friday exams

Mind Brain & Behavior (Leo Wang and Laura LaPlante)

- A lot of material in first 3 weeks of neuroanatomy
 - Would like to spread out more and add small groups
- Could synchronize content better with FCM
- Strength: good at integrating clinical cases and bringing back topics from previous blocks
- 1-2 additional days of class time would be desired for psychiatric portion of course, currently 32 hours
- Psychiatry portion at the end of long MBB block and students lose focus
- Being near the end of Foundations phase, students also more concerned about Step 1
- If psychiatry separate from MBB, would need more time for pharmacology
- With so much material to go through, some content has been moved to small groups and others to pre-recorded videos

Lifecycle (Alyssa Stephenson-Famy & Robert Steiner)

- Goal of the course was to be integrative at the end of Foundations by progressing from birth to death
- Block is fragmented into 3 content areas: reproduction, pediatrics, geriatrics, with not much expertise overlap
 - Geriatrics content is very clinical and topics are advanced for students at this stage of medical school
 - Childhood and Adolescent content also very clinical and could be moved into FCM
- One suggestion is to make the course only focus on reproduction
 - Move pediatric and geriatric content out and shorten block
 - Geriatrics could be in January after completion of foundations and used for board prep, organ systems review and integration of concepts
- Move Lifecycles earlier, maybe to first year, and should come after Endocrine
 - Introduction to hormones and signaling pathways needs to precede this block

- Needs more time
 - o Topics too compressed: nasal cavity, cavernous sinus and middle ear in I&D
- E&H abdomen dissection could use more time
- Should be more opportunity for dissections in MSK
- Support keeping thread grades, especially for HFF
- Like the idea of having HFF upfront in blocks, allows revisiting of the material that can be built on when teaching the physiology,
- HFF already front loaded in CPR, E&H and Lifecycle

Pathology/Histology (Mara Rendi)

- Need more time for pathology and histology
 - Significantly less than in the old curriculum
 - o Pathology/Histology coverage on Step 1 is greater than 50%
 - Current hours allow for absolute minimum coverage of materials, pathology lectures contain large number of slides in order to get through necessary material
- Threads rely on blocks to create space for them in class (number of hours of lecture, any small groups) and in assessment (asked to review block leader's questions rather than writing own assessment questions)
- Would like to have path/histo small group sessions where students would work with the material in clinical cases
- Histology material in small groups can be used to bring back physiology
- MCBD a bright spot: has adequate time for path/histo content
- Path/Histo particularly low in Cardio/Pulm portions of CPR and in Lifecycle
- Would like to run a small group tumor board session in B&C
- Gap: pathology of lung cancer
- Strongly feels threads need own grade so students learn the material
- Thread leads need more control of own content in coverage time and assessments

Pharmacology (Chris Hague)

- Overall structure of the Pharm thread is fine
- Needs more dedicated time/integration into curriculum
 - Dedicated time could be accomplished by pre-recorded videos covering basic concepts and mechanisms of action/toxicity
- Thread content/hours/questions should not be set by block directors
- Comments about overall curriculum structure:
 - Some blocks too long and should be broken into smaller "modules", each focusing on an organ system/topic/discipline (~3-4 weeks each)
 - Shorter modules are a way to reduce faculty workload, especially for block directors, and reduce faculty stress

Appendix A — Draft Guiding Principles

2022 Foundations phase update: guiding principles

Structural issues

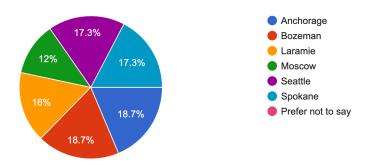
- UW needs to adhere to US Department of Education quarter length; quarters can be no longer that 13 weeks
- There is insufficient time for testing/final examinations during and after blocks, and inadequate "white space" between blocks
- The pace of the UW Foundations phase is too fast for some students.
- There is inadequate time and space around CBSE and OSCE's
- Presenting research methods content concurrently with MCBD and I & D is stressful for some students, and tends to de-emphasize this important topic
- CPR is too long and would ideally be shortened in some way (i.e., extract a component)
- We do not currently have a standardized approach to block structure and leadership, pedagogy, assessment, resources, etc. in all blocks. A standard approach could improve student experience and gain efficiency
- UWSOM does not currently have a coherent and explicit approach to the use of commercial products
- UWSOM does not currently have a coherent and consistent approach to USMLE Step 1
 preparation
- There is currently not a consistent approach to assessment (i.e., what is testable, how we inform students, etc.) in all blocks
- The block-thread relationships (and ultimate decisions about time devoted to thread content, approach to pedagogy, depth of coverage, and overall emphasis of thread content) is not clearly defined, and gaps in thread content and delivery result
- Students are not always aware of their individual progress with thread content

Specific topic areas

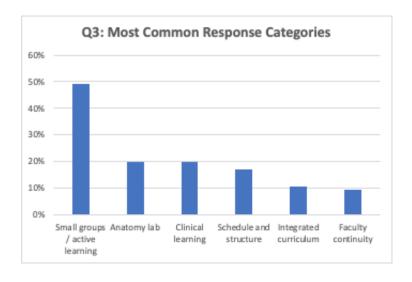
- We need more emphasis on hematology, ideally would be before CPR and immunology
- We need more emphasis on immunology
- We need more emphasis on evidence-based medicine
- We need more emphasis on threads (e.g., pathology, pharmacology i.e. antimicrobials and neuropharmacology)
- We need more emphasis on multisystem processes and diseases

Appendix B – Faculty Survey Responses

What is your Foundations site?
 75 responses

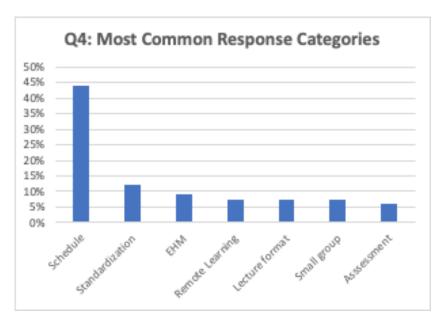


3. What are the top 3 features of Foundations curriculum at your site that you would like to preserve? How would you recommend doing so?



- Small groups/interactive learning: Keep small group cases and discussions.
- Anatomy lab: Keep the anatomy lab.
- Clinical learning: Keep FCM. Keep Hospital Mornings but decrease the number to accommodate a shorter term.
- Schedule and block structure: Preserve a summer break.
- Integrated Curriculum: Keep the integrated clinical curriculum with the blocks (e.g., FCM, PCP, Colleges).
- Faculty Continuity: Small groups should be led by consistent group of facilitators. Keep continuity of guides.

4. What are the top 3 features of Foundations curriculum at your site that you would like to change? What should we do instead?



Schedule and block structure:

- General: Foundations phase needs more time overall. Long blocks are challenging for students and faculty and should be made shorter where possible.
- Blood & Cancer needs to be longer and earlier. Move B&C near or before CPR.
- MSK: needs more time.

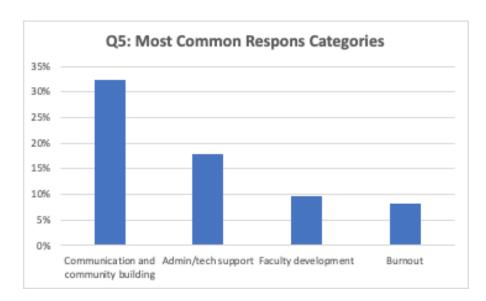
Standardization

- Blocks need to be delivered more uniformly with best practices.
- Increase block director communication to learn from one another's successes/failures.

Other

- EHM: Do away with EHM as stand-alone block and incorporate EHM content into blocks or FCM so students see the relevance.
- Lecture format: Reduce lecture time and increase active learning sessions.
- Assessment: Need cumulative exams.
- Need to put in place a clear remediation process.
- Small group leaders need more prep materials.
- Emphasize attendance.

5. What is one thing that could be done to improve the faculty experience at your site?



- Faculty communication and community building: Need administration to listen and support faculty (vocally and authentically), not just give students whatever they want. Better communication and collaboration across faculty and across regions. More opportunities for faculty to meet and get to know one another to reduce tensions.
- Administrative and technology support: More faculty support for recruitment. More faculty support for technologies like Canvas, Sharepoint, Zoom, etc. More administrative support for scheduling.
- Faculty development: More faculty development around race and gender. Training on virtual teaching.
- Burnout: Schedule enough protected classroom time to teach the material. Faculty need vacation time that works with their clinical job vacation times.
- Individual flexibility: Allow us to make our own slides. More independence over curriculum.
- Other: Have assessments prepared and approved before the start of a block. Better compensation.