

Supplemental digital content for Chen SF, Deitz J, Batten JN, et al. A multi-institution collaboration to define core content and design flexible curricular components for a foundational medical school course: Implications for national curriculum reform. Acad Med.

Supplemental Digital Appendix 1

Guiding Principles for Defining Core Content

1. Fundamental to understanding more generalizable concepts; e.g., bacterial pathogenesis
2. Important implication in understanding burden of disease; e.g., epidemiologic features of prevalent infection
3. Evergreen (i.e., known to be true or at least “verified” in a rigorous manner); e.g., clinical manifestations of specific infection, role of immune system in disease presentation
4. Foundational building blocks for understanding next level of core knowledge; e.g., immunologic response to class of pathogens
5. Not simply an easily searchable fact; e.g., size of TB genome
6. Regarded as important subject area by both basic science and clinical experts; e.g., TB
7. Utilized on a regular basis by practicing primary care physician or general specialist; e.g., recognizing at risk populations
8. Explicable; building on prior knowledge; e.g., immune reconstitution inflammatory response with TB & HIV Rx
9. Deliverable as an illness script; e.g., symptoms plus signs leading to the diagnosis of a specific illness
10. Frequently misunderstood in clinical practice; e.g., optimal duration of antibiotic therapy is known
11. Led to the uncovering of big ideas; e.g., bacterial genetics and antimicrobial resistance
12. Counterintuitive; the host response causes much of the morbidity attributable to infectious diseases

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Supplemental Digital Appendix 2

Course Learning Objectives

- Outline the clinical approach to a patient with a suspected a suspected infection
- Describe the microbial characteristics that determine their disease-causing potential
- Discuss the role of the host immune response in the susceptibility and manifestations of infectious diseases
- Name the strategies available for the prevention and treatment of infections
- Summarize the domestic and global impact of the infectious diseases

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Supplemental Digital Appendix 3

Open-Ended Survey Questions by School

School	Qualitative Questions
Stanford	<ul style="list-style-type: none"> • Specific comments about module videos/interactive sessions: • Comments about the Microbiology and Infectious Diseases curriculum. Please consider: <ol style="list-style-type: none"> 1. Strengths, weaknesses, opportunities for improvement 2. Quality of the components (springboard and content videos, Q&A with Bagels sessions, interactive sessions, mid-course and final exam questions) 3. How the design of the modules impacted your learning 4. Integration with other aspects of the curriculum 5. Interface design (were online materials accessible/easy to use?) 6. Amount of time required to complete each module 7. Views about the use of flipped classroom format versus traditional lecture format
UCSF	<ul style="list-style-type: none"> • How did the design of the Fungal Infections, Mycobacterial Infections, Enterovirus & Arbovirus Infections, Hepatitis, Helminths, and Protozoa modules impact your learning of the content? (Consider springboards, narrated PowerPoints, and interactive session) • How would you compare your ability to learn content between traditional lectures and the Fungal Infections, Mycobacterial Infections, Enterovirus & Arbovirus Infections, Hepatitis, Helminths, and Protozoa modules? • Comment on the interface design (including accessibility) of the online materials. Consider strengths, weaknesses, areas for improvement. • Comment on the adequacy of scheduled time in the curriculum to complete the modules (Fungal Infections, Mycobacterial Infections, Enterovirus & Arbovirus Infections, Hepatitis, Helminths, and Protozoa).

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	<ul style="list-style-type: none"> • Comment on the integration and timing of the modules (Fungal Infections, Mycobacterial Infections, Enterovirus & Arbovirus Infections, Hepatitis, Helminths, and Protozoa) in relation to the larger I-3 curriculum and assessments.
UW	<p>Comments about the interactive sessions:</p> <p>Comments about the Invaders and Defenders curriculum. Please consider:</p> <ul style="list-style-type: none"> • Strengths, weaknesses, opportunities for improvement • Quality of the components (springboard and content videos, Q&A with Bagels sessions, interactive sessions, mid-course and final exam questions) • How the design of the modules impacted your learning • Integration with other aspects of the curriculum • Interface design (were online materials accessible/easy to use?) • Amount of time required to complete each module • Views about the use of flipped classroom format versus traditional lecture format • Specific comments about any of the module videos/interactive sessions (Pneumococcus, Tuberculosis, Infections of the Heart)
Duke	<p>Comments about the videos. Please consider:</p> <ul style="list-style-type: none"> • Effectiveness of the module in defining and meeting learning objectives; Quality, educational value and organization of the video content; Integration of concepts in microbiology, immunology and clinical medicine • Workload associated with the module