Unseen Life of Earth: An Introduction to Microbiology (DVD; 1999; 12 videos, about 25 minutes each; Annenberg Learner; https://www.learner.org/resources/series121.html)

Unseen Life on Earth: An Introduction to Microbiology is a 12-part video series developed in 1999 by Oregon Public Broadcasting in association with Baker & Simon Associates and the American Society for Microbiology (ASM). The video series was based on a book by Needham, Hoagland, McPherson, and Dodson called Intimate Strangers: Unseen Life on Earth, which was published by the ASM Press in 2000. The video series is still available through Annenberg Learner (https://www.learner.org/resources/series121.html), and Distance Learning Licenses can be obtained for its use in credit or noncredit online or face-to-face courses. Although the series was produced over 15 years ago, as someone who has taught microbiology for over 40 years, I believe it holds up very well.

The individual episodes are relatively short (about 25 minutes) and focus on the characteristics of microbes that might be of interest to humans. Topics range from “genetic transfer” and “microbial evolution” to “microbial interactions” and “human diseases.” The narration is clear, and the images are very attractive. Some contain interviews with scientists who are involved in the actual work and so are quite personal. In a sense, these videos are an expanded version of the introductory stories or cases that are now found at the beginning of each chapter of most microbiology textbooks. The availability of these high-quality videos can reduce the need for instructors to prepare their own. There are relatively few other commercially available microbiology video courses.

I can imagine using the video series in several ways. For those instructors who want to “flip” much of their regular class, each video could be used as a “preview” of a topic before an in-class discussion or expanded lecture. For those instructors who want to replace their lectures in a face-to-face course, each video could be used as a class activity to be followed immediately by a student discussion. For those instructors who teach online or hybrid courses, the videos could be used to introduce or illustrate specific topics and supplemented with additional resources as in the earlier online courses. Instructors also could use each video as a starting point for a more extended literature study. Students could be directed to other resources related to each topic, leading to a PowerPoint presentation or term paper. [See, for example: Breakwell, D. P. (2009). Using the primary literature in an allied health microbiology course. Journal of Microbiology and Biology Education, 4(1). doi 10.1128/jmbe.v4i1.71]

One of the major advantages of Unseen Life on Earth: An Introduction to Microbiology is that it provides a balanced overview of the entire field. I would encourage other high school or college instructors to look at these videos again and think about how they might be used in their courses. I also happily provide my Student Study Guide to the Unseen Life on Earth series to any instructor who might find it useful (see https://bit.ly/2r1j4kP).

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