

21M.380 · MUSIC AND TECHNOLOGY  
RECORDING TECHNIQUES & AUDIO PRODUCTION

READING ASSIGNMENT 2 (RD02)  
MICROPHONES

DUE: WEDNESDAY, SEPTEMBER 14, 2016, 12:30PM  
SUBMIT TO: MIT LEARNING MODULES ▶ ASSIGNMENTS  
1% OF TOTAL GRADE

## 1 Materials to study

- Shure (2012a). *Understanding Mic Specifications. Part 1 – Operating Principle*. URL: <https://youtu.be/Mxp3eCCQyas> (visited on 11/05/2013).
- (2012b). *Understanding Mic Specifications. Part 2 – Frequency Response*. URL: <https://youtu.be/7TH82dx7Qas> (visited on 11/05/2013).
- (2012c). *Understanding Mic Specifications. Part 3 – Polar Pattern*. URL: <https://youtu.be/rYWnSuAxato> (visited on 11/05/2013).
- (2012d). *Understanding Mic Specifications. Part 4 – Electrical Output*. URL: <https://youtu.be/UYMaRhRt8Ts> (visited on 11/05/2013).
- Klepko, John (2004). “Understanding microphones.” In: *Audio Anecdotes: Tools, Tips, and Techniques for Digital Audio*. Ed. by Ken Greenebaum and Ronen Barzel. Vol. I. Natick, MA: A K Peters, pp. 115–28. MIT LIBRARY: 001253727. Available at: MIT Learning Modules ▶ Materials.

## 2 Questions to respond to

1. We can categorize microphones by the type of electroacoustic transducer that they use. According to this categorization, which types and subtypes of microphones are there?
2. All other things being equal, does a microphone with higher sensitivity output a higher or a lower voltage than a less sensitive mic?
3. Why might one choose a cardioid microphone over an omni in a recording situation?
4. Does a cardioid microphone require phantom power?

### 3 Guidelines

- Your answers need not be very extensive (a short paragraph per question is enough), but they should demonstrate that you have actually read the article and understood its main points.
- Be concise and pay attention to form, grammar, and spelling.

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