

Abstract Submitted
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Nanoscience and nanotechnology activities for undergraduates

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Ball State University, Muncie, IN — Exercises and assignments for a junior-level
physics course on nanoscience and nanotechnology are discussed. We describe
course topics concerned with the fundamental physics of nanoscale systems, order-
of-magnitude estimations, simple models, questions on assigned reading of seminal
works in the field, class discussion topics, and student presentations. Computational
assignments address electron tunneling, molecular conduction, nanoscale transistors,
and carbon nanotubes. The Purdue NanoHub serves as a software and computa-
tional resource for the course.

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