

# Mathematical Modeling in Precalculus, Calculus I, and Modeling Courses

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To better prepare our students for the interdisciplinary nature of real-world problems with no answer key in the back of the book, the 2019 GAIMME report recommends incorporating mathematical modeling in all grades K-12 and undergraduate levels. I will present the modeling framework and outline for lessons I plan to use in my current intermediate algebra, precalculus and calculus courses. The audience will also participate in a lesson on the SIR model/rumor spreading that I plan to use in my mathematical modeling course in the spring - please bring your laptops! Materials have been used with permission or adapted from the GAIMME report and the SIMIODE community of practice.