

1154-G1-343 **Artemis Karaali** (artemis.karaali@gmail.com) and **Gizem Karaali***
(gizem.karaali@pomona.edu). *Delicious Mathematics: Contexts for Mathematical Exercises from
the Science and Engineering of Food*. Preliminary report.

We explore the various contexts within food science and food engineering where mathematics plays a significant role. We then offer templates of mathematical exercises for a range of standard mathematics courses where these contexts might be explored (such as calculus, differential equations, and mathematical modelling). We also provide sufficient background information for the instructor to motivate students as well as to prepare them to effectively tackle the problems. Topics explored include processing, packaging, and shelf life of various agricultural and industrial food products, lethal doses and safe zones for specific ingredients, and various related topics in predictive microbiology. Finally we share some notes on the collaboration that led to this work, between a mathematician and a food scientist, as well as a mother and a daughter. (Received September 01, 2019)