1116-K1-219   **Jakob Kotas*** (`jkotas@uw.edu`), University of Washington, Dept. of Applied Mathematics, Lewis Hall #202, Box 353925, Seattle, WA 98105. *Introducing linear programming in mathematical modeling courses.*

Linear programming (LP) is a branch of mathematics concerned with the optimization of a linear objective function under linear equality and/or inequality constraints. LP is frequently taught in operations research curricula but is not commonly discussed in undergraduate-level applied mathematics and mathematical modeling courses, perhaps because it strays from a typical calculus-based modeling approach. Nevertheless, the ability to formulate an applied problem as an LP is a valuable skill due to the preponderance of very efficient solution methods. Furthermore, there exists an elegant geometric interpretation of such problems, strengthening intuition between branches of mathematics. This talk will cover some benefits and challenges encountered in incorporating concepts from linear programming into an undergraduate-level mathematical modeling course. (Received August 14, 2015)