1145-05-2058 Mami T. Wentworth* (wentworthm1@wit.edu) and Melvin S. Henriksen

(henriksenm@wit.edu). Inquiry-Oriented Laplace Transforms. Preliminary report.

For our introductory Differential Equations course, we have adapted the material from Inquiry-Oriented Differential Equations (IODE) developed by C. Rasmussen, K.A. Keene, J. Dunmyre, and N. Fortune. The IODE material aims to deepen conceptual understanding through engaging in mathematics, encouraging peer-to-peer interaction and focusing on student thinking, as referenced in the MAA IP Guide. Recently, we have developed a unit for the Laplace transform to supplement the existing IODE material. In this unit, students complete tasks that help them understand the transform, and work on examples with discontinuous forcing functions that motivate the need for the Laplace transform. We will show examples from the Laplace unit, and discuss student and instructor feedback on the implementation of this material. (Received September 24, 2018)