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Kathleen Grace Kennedy* (kennedyk2@wit.edu), Wentworth Institute of Technology, 550 Huntington Avenue, Boston, MA 02115, **Naomi Ridge** (ridgen@wit.edu), Wentworth Institute of Technology, 550 Huntington Avenue, Boston, MA 02115, **Rachel Maitra** (maitrar@wit.edu), Wentworth Institute of Technology, 550 Huntington Avenue, Boston, MA, **James O'Brien** (obrienj10@wit.edu), Wentworth Institute of Technology, 550 Huntington Avenue, Boston, MA 02115, and **Franz Rueckert** (rueckertf@wit.edu), Wentworth Institute of Technology, 550 Huntington Avenue, Boston, MA 02115. *Teaching Physics-Calculus with Applications to Engineering*. Preliminary report.

At Wentworth Institute of Technology, several engineering majors take physics I and calculus I at the same time. In the past, these courses being out of synch have caused difficulties for biomedical and mechanical engineering students taking them as co-requisites. In our presentation, we will report on the materials we developed and preliminary results on the impact of our course.

Our team developed curriculum for a synergetic inquiry-based course integrating physics and calculus, such that each subject reinforces the other. Students obtain a visual or physical “picture” to support the comprehension of calculus; likewise, physics will be presented not merely as an application of calculus but as its raison d’etre. In summary, we are teaching calculus through the lens of physics using context-driven and inquiry-based course material.

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