Inquiry-Based Learning in Mathematics: Work Hard, Have Fun

Dr. Ted Mahavier
Professor of Mathematics
Lamar University

Abstract

We offer practical advice on developing and delivering an inquiry-based learning (IBL) course. We will address the culture we strive to establish in the classroom, our grading methods, the development of materials and typical days in the classroom. Additionally, we will address resources that are available such as mentoring, materials and workshops.

About Dr. Mahavier

Dr. Mahavier is a Professor of Mathematics at Lamar University. Ted Mahavier was educated at Auburn University, Emory University, and the University of North Texas where he took more than a dozen courses taught via the Moore method from a total of nine academic descendants of R. L. Moore or H. S. Wall. Mahavier has taught modified Moore method courses in college algebra, trigonometry, calculus, business calculus, discrete mathematics, analysis, topology, graduate differential equations and graduate numerical analysis. He has mentored more than a dozen faculty members, each of whom implemented the Moore method for the first time under his direction. Mahavier has delivered nine invited addresses on aspects of the method including implementation, administrative hurdles, and material development. His publications span mathematical research, mathematics education, and inquiry-based course notes. In addition, numerous papers have been authored by others highlighting the non-profit MathNerds which he co-founded in 1996 and which has provided discovery-based guidance to more than 200,000 students world-wide. Mahavier is co-founder and Managing Editor for The Journal of Inquiry-Based Learning in Mathematics, a journal dedicated to publishing refereed IBL course guides. He is a co-author of The Moore Method: A Pathway to Learner-Centered Instruction, a how-to manual for the Moore Method.