

1163-F5-1650 **Mark Kozek*** (mkozek@whittier.edu), Department of Mathematics & Computer Science,
Whittier College, Whittier, CA 90608-0634. *Soccermetrics: An Interdisciplinary Course on Soccer
Analytics*. Preliminary report.

We reflect on our experience creating and teaching *Soccermetrics*, an interdisciplinary course (aimed at the general undergraduate population) that focuses on quantitative techniques from mathematics or finance that are used in soccer analytics.

We begin the course with an overview of elementary statistics, spreadsheet computing, and matrix arithmetic. Depending on student preparation/interest, we may include concepts from linear algebra, game theory, or computer programming. We evaluate data from soccer matches to develop metrics, create team rankings, predict match outcomes, analyze penalty kick shoot-outs, value players, discover fallacies in common soccer “facts”, etc. We also survey the economics of operating a soccer team, of building a soccer stadium, and of hosting a World Cup. (Received September 16, 2020)