Seminar<br>Visualizing Spatial Sports Data<br>Course Syllabus, Version 2.0<br>Last Updated: September 3,, 2021

## Who: Professor Kirk Goldsberry

What: As computation and technology continue to dominate trends in almost every industry, sports are by no means immune. In this short course we examine one key area within sports analytics: data visualization. Specifically, we focus on the ability of visualization to help audiences understand key concepts uncovered by analytical processes.

This seminar explores how to use data visualization and thematic cartography to elevate the analyses of sports performance. We will focus on player tracking data from the NBA throughout the seminar to help explore, discover, and communicate new findings about elite athletes.

When: Class meets - October 11 to October - Time TK Place TK

Office Hours: By appointment only, request via Canvas.

Required Texts: Articles, (Tversky, Brewer, etc.)

Course Evaluation: Students will be evaluated based upon a 2,000 word report and 3 graphics embedded within it. The goal is to complement a cohesive analytical narrative with a set of visuals to elevate the communicative power of the overall document. Special emphasis will be placed on the graphics in the evaluation since we are focusing on visualization concepts throughout the seminar. The final paper is due on December 23, 2021.

| Month | Date | Topic | Assignment Due |
| :---: | :---: | :---: | :---: |
| October | 11 | Course Intro <br> Assignment 1: Basic Data Analyses, Superset Trends, Key Averages, Fluency <br> In Baselines <br> Paper Intro: Who is the best and worst 3-point shooter in pro basketball? | - |
|  | 12 | Basic concepts in visualizing spatial data <br> Assignment 2: Research Questions, Paper Outline | Reading Slocum, Ch. 5 Superset |
|  | 13 | Writing \| Graphics | The Integration Does Animation Facilitate Learning? Assignment 3: Superset Graphics, Individual Shooter(s) Graphic | Research Questions, Paper Outline Reading Tversky |
|  | 14 | Text and Labeling on Graphics Assignment 4: Paper, 4 Slides | 1. Superset Graphics - key takeaways <br> 2. Individual Shooters graphics |
|  | 15 | to be defined |  |

