

Live online course

# BASKETBALL ANALYTICS

**16**

LIVE  
CLASSES

**7**

ASSIGNMENTS

**8**

WEEKS

**4**

LABS

**6**

CASE  
STUDIES

**1**

FINAL  
PROJECT

# AJ Meyer

EX-DALLAS MAVERICKS



WED (10/15)

5 PM PT / 8 PM ET

Instructor introduction

General housekeeping

Assignment overview

00

## Welcome Class

THU (10/16)

5 PM PT / 8 PM ET

Key applications

Tools &amp; software

Evolution &amp; decision-making impact

Case study: Examples of how analytics fits into basketball

Lab: Intro to Basketball Reference, nba.com, and pbpstats.com

01

## Introduction to Basketball Analytics

TUE (10/21)

5 PM PT / 8 PM ET

Basic box score stats

Efficiency metrics

Adjusting for context

Individual advanced metrics

Individual one-number metrics

Case study: Real game stats and interpreting box score data

02

## Fundamental Basketball Statistics

**Assignment #01**

Analyze players of varying abilities using basic and advanced metrics.  
Think like a scout—what do the stats really say?

THU (10/23)

5 PM PT / 8 PM ET

Data and contextualizing it

Data trends and patterns

Navigating and extracting data

Filtering and comparing player stats

Lab: Extracting data from Basketball Reference

Workshop: Blind player profile comparison

03

## Data Interpretation

TUE (10/28)

5 PM PT / 8 PM ET

Offensive and defensive efficiency

Four Factors

Trends over time

Lineup data

Pre-class Reading: Basketball on Paper (Dean Oliver)

Case study: Impact of the Four Factors on team success

04

## Evaluating Team Performance

THU (10/30)

5 PM PT / 8 PM ET

Evaluating shot selection

Shot quality &amp; expected shot value

Shot efficiency &amp; identifying hot spots

Data &amp; player development

Guest speaker: Shooting coach utilizing data for player development

Case study: Shot tracking technologies (NOAH, Second Spectrum)

05

## Shot Tracking and Advanced Shooting Analysis + Guest Speaker

TUE (11/11)

5 PM PT / 8 PM ET

Analyzing opponent using historical data

Data-driven gameplans

Preparing for specific scenarios

Adjusting based on prior matchups

Lab: Utilizing data to prepare a scouting report

06

## Game Preparation Through Analytics

**Assignment #03**

Create a playoff game scouting report. Choose one team from a list and build a Game 4–7 game plan based on their series performance.

THU (11/20)

5 PM PT / 8 PM ET

Monitoring player workload

Predicting injury patterns

Player health &amp; team performance objectives

Guest speaker: Leveraging data to minimize injury risk

07

## Injury Prevention and Load Management + Guest Speaker

TUE (11/25)

5 PM PT / 8 PM ET

Analyzing in-game decisions

Tracking and adjusting in real time

Optimizing play calling

Lineup optimization and rotations

FinCase study: Going for two vs. three when down by three

Win probability project overview

**Assignment #04**

Break down the final moments of a Knicks/Celtics playoff game.  
Recommend a better endgame strategy based on data.

08

## In-Game Strategy: Data-Driven Coaching Decisions

TUE (12/2)

5 PM PT / 8 PM ET

Assessing strengths and weaknesses

Individualized training plans

KPIs based on comparable precedents

Monitoring and measuring progress

Workshop: In groups, create a player development analysis for a young player.

09

## Player Development Analytics

THU (12/4)

5 PM PT / 8 PM ET

Player forecasting &amp; projecting potential

Building data-driven scouting reports

Lab: Evaluating draft prospects using data from college games

Case study: The predictability (and unpredictability) of the NBA draft

10

## Scouting Through Data

TUE (12/9)

5 PM PT / 8 PM ET

Evaluating trades &amp; free agency decisions

Salary cap &amp; roster efficiency

Undervalued players &amp; market inefficiencies

Guest speaker: Implementing data in ideal roster construction

11

## Roster Construction + Guest Speaker

Assignment #06

Identify and analyze undervalued player contracts.

THU (12/16)

5 PM PT / 8 PM ET

Dashboards &amp; visual tools

Visualizations for player, team, &amp; league insights

Data visualization best practices

Storytelling: Charts, graphs, &amp; data narratives

12

## Visualization and Storytelling

TUE (1/6)

5 PM PT / 8 PM ET

Translating complex statistical concepts

Tailoring communication

Technical depth with accessible messaging

Workshop: Role-play a presentation to a coach or GM

13

## Communicating Insights

### Assignment #07

Create a visual and summarize the top 3 insights from it to help with team decision-making.

THU (1/8)

5 PM PT / 8 PM ET

Fostering a collaborative analytics environment

Managing change in data-driven environments

Ethical considerations

Overcoming resistance

Guest speaker: How analytics can empower players,  
and making informed decisions about their careers

14

## Implementing an Analytical Philosophy + Guest Speaker

TUE (1/21)

5 PM PT / 8 PM ET

Motion &amp; player tracking technology

Emerging tech

AI and machine learning

The future of data in basketball

15

## Future of Basketball Analytics

WED (1/22)

5 PM PT / 8 PM ET

16

## Career Opportunities + Guest Speaker

Guest Speaker: Career opportunities in basketball analytics

Career opportunities

Resume and interview tips

Housekeeping rules

Final project overview

**Final Project:**

Analytics-Driven Coaching OR Front Office Strategy

OFFICE HOURS

4:30 PM PT / 7:30 PM ET

## 30 minutes before classes #2-16

### 01 SESSION

TUE (10/21)

### 02 SESSION

THU (10/23)

### 03 SESSION

TUE (10/28)

### 04 SESSION

THU (10/30)

### 05 SESSION

TUE (11/11)

### 06 SESSION

THU (11/20)

### 07 SESSION

TUE (11/25)

### 08 SESSION

TUE (12/2)

### 09 SESSION

THU (12/4)

### 10 SESSION

TUE (12/9)

### 11 SESSION

THU (12/16)

### 12 SESSION

TUE (1/6)

### 13 SESSION

THU (1/8)

### 14 SESSION

TUE (1/21)

### 15 SESSION

WED (1/22)

ASSIGNMENTS

To earn a course certificate,  
earn at least 80 of 100 points

|    | ASSIGNMENT   | DUE DATE    | GRADE     |
|----|--|-------------|-----------|
| 01 | Player Analysis                                    | TUE (10/28) | 10 POINTS |
| 02 | Team Evaluation                                    | TUE (11/4)  | 10 POINTS |
| 03 | Playoff Game Preparation Report                    | THU (11/20) | 15 POINTS |
| 04 | End-of-Game Film Analysis                          | THU (12/4)  | 10 POINTS |
| 05 | Draft Prospect Report                              | MON (12/15) | 5 POINTS  |
| 06 | Undervalued Contracts Analysis                     | MON (12/22) | 10 POINTS |
| 07 | Visualization and Insight Communication            | TUE (1/13)  | 10 POINTS |
| 08 | Analytics-Driven Coaching OR Front Office Strategy | MON (1/19)  | 35 POINTS |

IN TOTAL

**100 POINTS**  
+5 BONUS POINTS

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SEE YOU  
IN CLASS

