Course Syllabus

**Welcome to Foundations of Sports Analytics: Data, Representation, and Models in Sports**, taught by Wenche Wang, and Stefan Szymanski!

This course provides an introduction to using Python to analyze team performance in sports. Learners will discover a variety of techniques that can be used to represent sports data and how to extract narratives based on these analytical techniques. The main focus of the introduction will be on the use of regression analysis to analyze team and player performance data, using examples drawn from the National Football League (NFL), the National Basketball Association (NBA), the National Hockey League (NHL), the English Premier LEague (EPL, soccer) and the Indian Premier League (IPL, cricket).

This course does not simply explain methods and techniques, it enables the learner to apply them to sports datasets of interest so that they can generate their own results, rather than relying on the data processing performed by others. As a consequence the learning will be empowered to explore their own ideas about sports team performance, test them out using the data, and so become a producer of sports analytics rather than a consumer. While the course materials have been developed using Python, code has also been produced to derive all of the results in R, for those who prefer that environment.

**Participation Strategies**

Engaged learning looks different for everybody. In this course, we hope you will define your own measures of success and engage with the material in a way that best suits your needs. We recognize and celebrate the diverse ways learners engage in courses. As you go through this course, we hope you will reflect on your unique skills, needs, and aspirations, and engage in the course material in a way that aligns with your own goals. While the course provides time estimates for completion, you should feel empowered to engage in the material in whatever ways make sense to you.

**Course Schedule & Grading Policy**

This course includes a variety of assignments, from quizzes to writing assignments to programming assessments within the Jupyter Notebook environment. Note that some assignments and in-video quizzes may not be mobile friendly. You can see the grading breakdown below for each assignment:

**Grading Breakdown**

|  |  |
| --- | --- |
| Week 1 Quiz | 16.67% |
| Week 2 - Quiz 1 | 5.55% |
| Week 2 - Quiz 2 | 5.55% |
| Week 2 - Quiz 3 | 5.55% |
| Week 3 - Quiz 1 | 8.33% |
| Week 3 - Quiz 2 | 8.33% |
| Week 4 - Quiz 1 | 5.55% |
| Week 4 - Quiz 2 | 5.56% |
| Week 4 - Quiz 3 | 5.56% |
| Week 5 Quiz | 16.67% |
| Week 6 - Quiz 1 | 5.56% |
| Week 6 - Quiz 2 | 5.56% |
| Week 6 - Quiz 3 | 5.56% |

**Ground Rules**

We expect everyone to be mindful of what they say and its potential impact on others. The goal is to have respectful discussions that do not violate the community space created for these conversations. Here are some productive ways to engage in this course:

* **Participate:** This is a community. Read what others have written and share your thoughts.
* **Stay curious:** Learn from experts and each other by listening and asking questions, not making assumptions.
* **Keep your passion positive:** When replying to a discussion forum post, respond with thoughts on what was said, not about the person who posted. Avoid using all caps, too many exclamation points, or aggressive language.
* **Acknowledge discomfort:** The topics discussed in this course might be challenging or hard to talk about. Stick with it and remember the benefits of having these tough conversations that surface from multiple perspectives.

We expect all learners to abide by our full [Learner Engagement Policy](https://docs.google.com/document/d/18Ucy-lT33FmkDDYdtxHEJ_nRytVLr_XGRVq2moAsPB4/edit). We will specifically be monitoring this course for language that could be considered inflammatory, incivil, racist, or otherwise unacceptable for this learning space, and we will remove language deemed such.

*Please note that external study groups on applications like WhatsApp are not affiliated or endorsed by the University of Michigan. We strongly discourage joining external groups and instead recommend interacting with your fellow learners within the platform. Please express caution if you do join or post any personal information in these forums or in these groups. These forums are publicly accessible and any information you post may be collected, published, or used in an exploitative manner (scams, etc).*

**Academic Honesty**

All submitted work should be your own and academic dishonesty is not allowed. Academic dishonesty can be defined as:

* Copying answers
* Copying words, ideas, or other materials from another source without giving credit to the original author
* Copying from your peers within the course
* Employing or allowing another person to alter or revise your work, and then submitting the work as your own

**Please don’t share or reuse solutions to assignments which is an academic integrity concern. Please do not:**

* Share complete assignment code in the course discussion forums
* Upload completed assignments to public websites with the goal of sharing solutions. (You can share your work and ideas for professional purposes though).
* Take a peer’s solution and submit it as your own

**Course Support**

Questions and discussion of course material should take place within the course itself. Please do not contact instructors or teaching assistants off the platform, as responding to individual questions is virtually impossible. We encourage you to direct your questions to [forum], where your question might be answered by a fellow learner or one of our course team members. For technical help please contact the [Coursera Learner Help Center](https://learner.coursera.help/hc/en-us) or use the support forums.

**Accessibility**

We are committed to developing accessible learning experiences for the widest possible audience. We recognize that learners with disabilities (including but not limited to visual impairments, hearing impairments, cognitive disabilities, or motor disabilities) might need more specific accessibility-related support to achieve learning goals in this course.

Please use the [accessibility feedback form](https://forms.gle/sxxDQvstDYJF9PtR6) to let us know about any accessibility challenges such as urgent issues that keep you from making progress in the course (e.g., missing or inadequate alt-text, captioning errors).

**Diversity, Equity, Inclusion, and Justice**

**We welcome all learners to this course.** People like you are joining from all over the world and we value this diversity. We strive to create a community of mutual respect and trust, where people from all backgrounds, identities and views are valued and heard without the threat of bias, harassment, intimidation, or discrimination. We pay attention to your feedback, how different types of learners experience this course, and aim to make improvements so the course can best serve everyone. We hope you enjoy learning about topics that are important to you.