



DTSC 1110-001-002 | INTRO TO SPORTS ANALYTICS | 3 CREDIT HOURS

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Office Hours: Tues/Thurs, 9:00 AM to 1:00PM

My preferred method of contact is by email. I will respond to all emailed questions within 24 hours.

COURSE DESCRIPTION

The principles of data science meet sports analytics. When a TV Broadcaster says Steph Curry has scored or assisted on the last 31 points, where does he get that from? Or 18 of Justin Jefferson's 21 catches have resulted in a first down. This course will cover the analytical thinking behind the data revolution in sports and how it greatly impacts a sports franchise, a TV broadcast, when a player is up for free agency and many more topics.

This class will consist of lectures, guest speakers from the sports industry and will culminate with several individual and group projects.

PRE OR CO-REQUISITE:

None

CLASS TIMES:

DTSC 1110-001: M/W/F 10:10AM-11AM; DTSC 1110-002: M/W/F 11:15AM-12:05PM

COURSE OBJECTIVES:

Upon successful completion of this course, students will:

1. Improve their overall problem solving and critical thinking ability
2. Gain an understanding of basic statistical concepts and their applications in the sports world
3. Obtain a broad survey of the methods used in sports data acquisition, processing, analysis, visualization and implementation
4. Develop the ability to recognize, formulate, and analyze decision-making in sports.

CAREER COMPETENCIES:

As you progress through your education, there is a need validated by major research organizations for you to gain and master non-cognitive skills known as competencies and carry them into the next phase of your career.

The core career competencies are:

- Critical Thinking
- Communication
 - Teamwork
 - Technology
 - Leadership
- Professionalism
- Career & Self-Development

These core competencies describe the requirements of a “career savvy” candidate. These competencies ensure all students are provided with the tools required for career success. This course covers the competencies highlighted above.

REQUIRED MATERIALS:

No textbooks need to be purchased

GRADING CRITERIA:

Course Element	Value
Classroom Assignments	35%
Individual/Group Projects	35%
Fall Sports Project	30%
Total	100%

GRADING SCALE:

A 100% to 90.0%

B <90.0% to 80.0%

C <80.0% to 70.0%

D <70.0% to 60.0%

F <60.0 % to 0.0%

COURSE POLICIES:

Attendance Expectations

Though this class is scheduled to be taught on M, W & F, there will be many cases (due to my weekend travel schedule with ESPN) where there won't be class on Friday. This means that I set a very high premium when it comes to attendance. Please read this carefully for your benefit: **If you miss two classes, your overall grade will drop by 10 points.** After two absences, any absence will cause an additional 5-point decrease in your overall grade. If you are sick, you must provide to me (via email) a medical note by the end of the day that you missed

Website: All course material will be on Canvas (mycharlotte.edu).

Classroom Conduct

I will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others, including mine, is similarly welcome. However, I will exercise my responsibility to manage

the discussions so that ideas and arguments can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

Late Work and Make-Ups

[Below is an example, customize this to your later work/make up policy]

Assignments that are submitted late will receive a zero.

Webcam Use in the Classroom

This course may require you to use a webcam for class sessions and/or assessments. Classes and assessments may be conducted using Zoom or other technology selected by your instructor which may use your computer's webcam or other technologies to communicate, monitor, and/or record classes, class activities, and assessments. Assessments may also be conducted using proctoring software, which may listen to you, monitor your computer screen, view you and your surroundings, and record (including visual and audio recordings) all activity during the proctoring process. Please contact your instructor if you are unable to comply or have any questions or concerns.

SYLLABUS:

Week 1 (8/18)- **Introduction & Expectations**

Week 1/2 (8/20-8/27)- **Fall Sports Project (Preparation)**

During this semester, each student will have an opportunity to attend a sporting event on campus (soccer, basketball, volleyball). The purpose of this is to be able to have the ability to accurately notate game information in real-time (while the game is being played). I will spend the next few weeks preparing you for this fall project by breaking down NBA games & soccer games

Week 3 (9/1)- **Traditional Stats vs Modern Analytics (Football, Basketball, Soccer)**

Analytics has changed the landscape of sports in a dramatic way. But is that a good thing? We will spend the next week giving examples on the most effective type of stats that equate to wins & efficiency.

Week 4 (9/8)- **Guest Speaker: PFF- Senior Data Scientist**

Pro Football Focus (PFF) is the most sought-after sports analytics company when it comes to football. NFL & college football team spend millions of dollars each year to PFF to get their advanced collection of data. This week, one of the senior data scientists for PFF will be speaking to the class.

Week 4/5 (9/10-9/17)- **PFF Group Project**

Students will be assigned a project centered around football & analyzing real-time stats for the NFL & CFB during the current 2025 season

Week 6 (9/22)- **Charlotte FC (MLS)- Guest Speaker- Charlotte FC's Analytics & Scouting Team**

Students will get the distinct chance to learn the value of analytics when it comes to evaluating team & player performance from Charlotte FC's Analytics & Scouting Department. Students will also have the opportunity to have a Q&A with Charlotte FC regarding career advice, what it's like to work in the team's first year & much more.

Week 6/7 (9/24-10/1)- Charlotte FC- Individual or Group Project

Students will be given an individual or group project with the goal of enhancing their ability when tracking quality data. Data could come from the MLS, Premier League or college soccer

Week 8 (10/6)- Fall Break

Week 9 (10/13)- Learning the NBA

The sport that is most watched when it comes to the 18-24 demographic surprisingly isn't the NFL or college football, it's the NBA. And this week, we will take a deep dive on how the NBA has changed (analytics -wise) in the last 10-20 years

Week 9/10/11 (10/15/10/29)- Portland Trailblazers -Guest Speaker (Portland Trailblazers Analytics Department)

Students will get an opportunity to learn the value of analytics when it comes to evaluating team & player performance from the Portland Trailblazers Analytics department. The Blazers had a 15-game win increase last season compared to the 2023-2024 season. Students will also participate in a case study regarding the 30 NBA teams

Week 12 (11/3)- ESPN Broadcaster (Reginald Walker)

One of ESPN's best analysts (Reginald Walker) will talk with students on the value of stats & analytics when it comes to broadcasting live events. As a project, students will be put in my role of a TV statistician and taught how stats are used to educate a TV audience when games are played. Students will watch game film to give them an opportunity to come up with their own creative stats.

Week 13-14 (11/10-11/19)- Charlotte Athletics (Recruiting)

With the big move to The American Conference, effectively recruiting the right student-athletes is at an all-time high. We will examine college recruiting both from a Power-5 & Group of 5 perspective

UNIVERSITY POLICIES & NOTICES

Academic Integrity:

All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism and other violations are set forth in the Code and on the [Student Accountability & Conflict Resolution website](#). The Code is available from the Dean of Students Office or online at legal.charlotte.edu/policies/up-407. Additional resources are available on the [Student Accountability & Conflict Resolution website](#).

Faculty may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

Use of Unauthorized Materials:

The following materials, equipment, websites, or tools are prohibited for completing course assignments, quizzes or examinations, or other academic exercises unless I explicitly permit such use for legitimate pedagogical purposes: [list unauthorized materials, which may include ChatGPT or other generative artificial intelligence tools, online course material suppliers like CourseHero or Chegg, etc.]

Policies on the Use of Generative Artificial Intelligence (AI):

As a best practice, faculty members should notify students how and when generative AI tools (such as ChatGPT, Gemini, etc.) may be used in their assignments, exams, and other course work. Below are two suggested syllabus policies that may be used or adapted, depending on the level of generative AI use the faculty member wants to permit.

Syllabus Policy: Permitting generative AI use in specific designated assignments, but not all. Students must disclose any AI assistance. Faculty members should specifically indicate on each assignment whether generative AI is permitted, and the way in which it may be used.

Generative AI Permitted in this Course Only as Designated, with Attribution

In this course, students are permitted to use generative AI tools such as ChatGPT only as designated by the instructor. To maintain academic integrity, students must disclose any AI-generated material they use and properly attribute it, including in-text citations, quotations, and references (see, for example, <https://apastyle.apa.org/blog/how-to-cite-chatgpt>). Be aware that students are responsible for any errors or information that is misrepresented or inaccurate (i.e. hallucinations) that generative AI tools produce when submitting work that includes AI-generated material. In addition, use of a generative AI tool that is not specifically authorized by the instructor may constitute a violation of the [Code of Student Academic Integrity](#).

Students should also include the following statement in their assignments to indicate use of a generative AI tool: “The author(s) acknowledges the use of [generative AI tool Name] in the preparation or completion of this assignment. The [generative AI tool Name] was used in the following way(s) in this assignment: [e.g., brainstorming, grammatical correction, citation, which portion of the assignment].”

Important Note on Data Protection and Privacy: When using generative AI tools, it is important to be aware that the data you supply might be used for training AI models or other purposes.

Consequently, there is no guarantee that the information you provide will remain confidential. You should exercise caution and avoid sharing any sensitive or private information when using these tools. Examples of such information include personally identifiable information, protected health information, financial data, intellectual property, original research, and any other data that might otherwise be legally protected.

Non-Discrimination:

All students and the instructor are expected to engage with each other respectfully. Unwelcome conduct directed toward another person based upon that person's actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy 406, The Code of Student Responsibility. Any student suspected of engaging in such conduct will be referred to the Office of Student Conduct.

Basic Needs:

UNC Charlotte defines basic needs as those needs that, when unmet, can hinder students' ability to focus on and successfully complete their academic studies. Basic needs include food security, housing security, transportation, health and wellbeing, technology and child care. Any student who experiences difficulty in one or more of these areas is urged to contact the Student Assistance and Support Services (SASS) Office for support with navigating campus and community resources. Students can also consult the Niner Needs website for a list of helpful resources designed to address student needs (<https://ninerneeds.charlotte.edu/>).

Preferred Gender Pronouns:

This course affirms people of all gender expressions and gender identities. If you prefer to be called a different name than what is indicated on the class roster, please let me know. Feel free to correct me on your preferred gender pronoun. If you have any questions or concerns, please do not hesitate to contact me.

Title IX:

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with civil protective orders, and more.

Please be aware that all UNC Charlotte employees, including faculty members, are expected to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I am expected to [report the information to the Title IX Coordinator](#). Although I am expected to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center (counselingcenter.uncc.edu, 7-0311); or (2) Student Health Center (studenthealth.uncc.edu, 7-7400). Additional information about your options is also available at titleix.uncc.edu under the “Students” tab.

Religious Accommodation:

Students who, acting in accordance with this Policy, miss classes, examinations or other assignments because of a religious practice or belief must be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a [Request for Religious Accommodation Form](#) to their instructor prior to the census date for enrollment for a given semester. The census date for each semester (typically the tenth day of instruction) can be found in [UNC Charlotte’s academic calendar](#).

Student Grievances:

Student Grievances Students enrolled in courses at the University of North Carolina at Charlotte who would like to file a complaint regarding their experience may do the following: 1. Refer to the UNC Charlotte Student Grievance Procedure. Students may also contact UNC Charlotte’s regional accrediting agency, the Southern Association of Colleges and Schools Commission on Colleges. 2. Students residing outside of North Carolina while attending UNC Charlotte may file a complaint in their state of residence. As required by federal regulations, students are directed to the list of resources here, compiled and updated by the State Higher Education Executive Officers.

Withdrawals:

Students are expected to complete all courses for which they are registered at the close of the add/drop period. If you are concerned about your ability to succeed in this course, it is important to make an appointment to speak with me as soon as possible. The University policy on withdrawal allows students only a limited number of opportunities available to withdraw from courses. It is important for you to understand the financial and academic consequences that may result from course withdrawal.

Incompletes:

The grade of I is assigned at the discretion of the instructor when a student who is otherwise passing has not, due to circumstances beyond his/her control, completed all the work in the course. The missing work must be completed by the deadline specified by the instructor, and no later than 12 months. If the I is not removed during the specified time, a grade of F, U, or N, as appropriate is automatically assigned. The grade of I cannot be removed by enrolling again in the same course, and students should not re-enroll in a course in which they have been assigned the grade of I. University policy addressing Incompletes.

FERPA Notification:

In establishing [University Policy 402, Student Education Records](#), UNC Charlotte adheres to a policy of compliance with the [Family Educational Rights and Privacy Act of 1974](#), also known as FERPA, a federal law that affords students the following rights with respect to their education records. For details, see the [FERPA Annual Notification](#) posted on the Office of Legal Affairs website. All questions concerning this FERPA Annual Notification may be directed to the attention of the [Office of the Registrar](#).

Student Consent for Plagiarism Detection Tools:

[Below is the University's policy regarding the use of plagiarism detection programs (such as Simcheck). Select among the suggested syllabus policies below that apply to your course. You may also construct your own language regarding the use of plagiarism detectors in coursework. Refer to <https://legal.charlotte.edu/legal-topics/classroom-policies-and-practices/suggested-syllabus-policies-notice>]

NOTE: UNC Charlotte has contracted with SimCheck for plagiarism detection services. Use of SimCheck (or another plagiarism detection service) is entirely in the discretion of the instructor, but use of such services requires:

1. that you provide advance notice (via syllabus) to your students that you are using such services and
2. that you obtain a signed [consent form](#) from each student.

Generative AI Detection: It is important to obtain a signed [consent form](#) when submitting student work to a generative AI detection tool. Note that while the use of generative AI detection tools is not prohibited by the University, such tools are not necessarily accurate and should not be relied on as presumptive of the use of generative AI in completing an assignment.

The consent form is necessary because both copyright rights and FERPA rights of students may be violated by disclosure and use of their works by submitting them to plagiarism detection services or AI detection tools. For more information, see [University Policy 402, Student Records](#), and [University Policy 315, Copyright Policy](#).

The [consent form](#) must be signed voluntarily, or it is ineffective. If a student elects not to sign a consent form, it is not advisable to submit their work to a plagiarism detection service or generative AI detection tool but instead to offer alternatives, such as (i) requiring a short reflection paper on research methodology; (ii) requiring a draft bibliography prior to submission of the final paper; or (iii) requiring the cover page and first cited page of each reference source to be photocopied and submitted with the final work.

In order to assist you in the correct use of plagiarism detection services or generative AI detection tools, below are several suggested syllabus policies. Note that you are not required to use such suggested syllabus policies, but if you plan to use SimCheck or another plagiarism detection service, or if you plan to use a generative AI detection tool, you are advised to at least notify the students in advance and obtain signed consent forms from the students, as noted above.

[Select this policy to keep or delete if not needed]

Suggested Syllabus Policy #1: If you plan to use SimCheck or another plagiarism detection service and/or a generative AI detection tool for ALL work/papers submitted in your class, you should include the following (or your own variation thereof) in your syllabus:

As a condition of taking this course, all required work/papers may be subject to submission for textual similarity review to [SimCheck](#) (or another plagiarism detection service) for the detection of plagiarism and/or a generative AI detection tool for detection of unauthorized use of generative AI. All submitted papers will be included as source documents in the SimCheck (or other plagiarism detection service) reference database solely for the purpose of detecting plagiarism of such papers. No student papers will be submitted to a plagiarism detection service or a generative AI detection tool without a student's [written consent and permission](#). If a student does not provide such written consent and permission, the instructor may: (i) require a short reflection paper on research methodology; (ii) require a draft bibliography prior to submission of the final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

[Select this policy to keep or delete if not needed]

Suggested Syllabus Policy #2: Alternatively, if you do **NOT** plan to submit all papers to **SimCheck** or another plagiarism detection service but plan to submit **ONLY** papers that you **SUSPECT** contain plagiarized works, you should include the following (or your own variation thereof) in your syllabus:

As a condition of taking this course, all work/papers that the instructor in good faith suspects are in whole or in part plagiarized may be subject to submission for textual similarity review to [SimCheck](#) or another service for the detection of plagiarism. Such works will be included as source documents in the SimCheck or other plagiarism detection service reference database solely for the purpose of detecting plagiarism of such papers. No student papers will be submitted to SimCheck or other plagiarism detection service without a student's [written consent and permission](#).

Likewise, as a condition of taking this course, all work/papers that the instructor in good faith suspects are in whole or in part created with the unauthorized use of a generative AI tool are

subject to submission to a generative AI detection tool. If a student does not provide such written consent and permission, the instructor may: (i) require a short reflection paper on research methodology; (ii) require a draft bibliography prior to submission of the final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

STUDENT SUPPORT

Disability Support Services:

Students in this course seeking accommodations to disabilities must first consult with the Office of Disability Services and follow the instructions of that office for obtaining accommodations.

The Office of Disability Services works with current undergraduate and graduate students along with prospective students to ensure equal access to UNC Charlotte's campus and educational programs.

All services are dependent upon verification of eligibility. Once approved for services, students receive accommodations which are based upon the nature of an individual's disability and documented needs. Students are strongly encouraged to register or check-in for their accommodations with a Disability Services counselor as soon as they have registered for classes. Accommodations are not retro-active and will not begin until the student notifies his or her faculty by providing the Letter of Accommodation.

Please visit the Office of Disability Services at for additional resources, email questions to disability@uncc.edu, or call 704-687-0040 (tty/v) for more information.

Accessing Help/Mental Health Services:

Mental health concerns or stressful events may reduce a student's ability to participate in daily activities or diminish academic performance. Services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via the Counseling & Psychological Services (CAPS) website at caps.uncc.edu.

Student Support Services:

Be sure to take advantage of the wealth of resources and support available at UNC Charlotte. Some of the resources available to you include the University Writing Resource Center, University Counseling Center, and the J. Murrey Atkins Library.

- [University Center for Academic Excellent \(UCAE\) | \(704\) 687 7837 | uncc-ucae@uncc.edu](#)

- [University Writing Resources Center \(WRC\) | 704-687-1899 | wrchelp@uncc.edu](#)
- [Veteran Student Services | 704-687-5488 | veteranservice@uncc.edu](#)
- [University Counseling Center | 704-687-0311](#)
- [Multicultural Resource Center | 704-687-7121 | mrc@uncc.edu](#)
- [List of computer labs on campus](#)
- [Atkins Library Laptop Lending program](#)

Food Insecurity:

Food insecurity is defined by the USDA as “a lack of access to enough food for an active, healthy life.” Food insecure categories include: reduced caloric intake, reduced food quality, lack of variety in diet, disrupted eating patterns, and hunger. Research shows that college students experience food insecurity at higher rates than the American household rate, and that food insecurity can negatively impact academic performance and persistence. In recognition of this problem, UNC Charlotte offers assistance to students facing food insecurity through an on- campus food pantry. The Jamil Niner Student Pantry (JNSP) is located on the east edge of campus at 1224 John Kirk Road. It has regular hours which may change from semester to semester; please see the website at <https://ninerpantry.uncc.edu/> for schedule and details on its services, as well as resources about hunger and food insecurity among college students.

