

# MSDS640\_Syllabus



## MSDS640 - Ethics, Privacy, and Social Justice in Data Science: Syllabus

### Instructor Information

Refer to Discussion Forum, Facilitator Introduction and Expectations

### Course Title

MSDS640 - Ethics, Privacy, and Social Justice in Data Science

### Course Description

Examines the ethical and privacy concerns in data science through various case studies and proposed codes of professional conduct. Concludes with an examination of data science experiments that can be used for social justice concerns.

### Prerequisite Courses

MSDS 600 – Introduction to Data Science

### Course Overview

Key concepts to be covered in this course include:

- Ethics and privacy issues in Data Science
- How Data Science can be used for Social Justice and the Social Good
- Regulations and codes of conduct in Data Science
- Government regulations and uses of data analytics

# Course Outcomes

Upon completion of this course, learners should be able to:

1. Describe ethics, privacy, and social justice issues in data science.
2. Apply ethics and privacy standards to the Data Science project lifecycle.
3. Characterize ethics and privacy issues in Big Data, data mining, and social media data analysis.
4. Evaluate data science ethical and privacy standards and codes.
5. Relate data science and social justice advancement.

# Course Materials

## Required Texts

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None

## Required Resources

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- From the Expert” presentations linked within each week and also provided in Course Resources folder.
- \*Reading List (by week) located in Course Resources folder.

## Technology Tools

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Computer with internet access

[technical specifications](#)

# Pre-Assignment

**Online Format:** Sign on to WorldClass (D2L) and become familiar with the course navigation. Read the assigned readings for Week 1. See Course Assignments and Activities table below.

## Pre-Assignment Due Dates

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**Online Format:** The instructor will specify the due date for this assignment.

# Course Assignments and Activities

Assignments for Online Course		
Week	Readings	Graded Assignments or Assessments (Percentage)
1. Introduction to Ethics, Privacy, and Social Justice	From the Expert(s)	Introductions Discussion Questions/Participation

1: Introduction to Ethics, Privacy and Social Justice	Reading List for Week 1*	Discussion Questions/Participation ACM Code of Ethics
2: Ethics, Privacy, and the Data Science Project Lifecycle	From the Expert(s) Reading List for Week 2*	Discussion Questions/Participation Predictive Justice
3: Policies and Compliance	From the Expert(s) Reading List for Week 3*	Discussion Questions/Participation Cook County State Office Paper
4: Government Regulations and Governance	From the Expert(s) Reading List for Week 4*	Discussion Questions/Participation Government Regulations Presentation
5: Ethics and Privacy in Government Analytics	From the Expert(s) Reading List for Week 5*	Discussion Questions/Participation AI Ethics Case Study
6: Social Media and the Internet in Data Science	From the Expert(s) Reading List for Week 6*	Discussion Questions/Participation Social Media Common Good Project
7: Data Science for Social Justice	From the Expert(s) Reading List for Week 7*	Discussion Questions/Participation Questions Case Study – Water Bolivia
8: Data Science Social Justice Data Sources	From the Expert(s) Reading List for Week 8*	Discussion Questions/Participation Data for the Common Good Project

## Summary of Assignments and Percentage Weight:

Assignments	Weighted Percentage
Discussion Questions/Participation	20%
Case Studies (3)	30%
ACM Code of Ethics	10%
Cook County Report	10%
Government Regulations Presentation	10%
Social Media Common Good Project	10%
Data for the Common Good Project	10%
<b>TOTAL</b>	<b>100 %</b>

## University and Anderson policies

[University Student Resources](#)

[Anderson College Syllabus Supplement](#)

## **Other Information**

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**Note to Learners:** On occasion, the course facilitator may, at his or her discretion, alter the Learning Activities shown in this Syllabus. The alteration of Learning Activities may not, in any way, change the Learner Outcomes or the grading scale for this course as contained in this syllabus. Examples of circumstances that could justify alterations in Learning Activities could include number of learners in the course; compelling current events; special facilitator experience or expertise; or unanticipated disruptions to class session schedule.



## Activity Details

Task: View this topic