

Syllabus

Course Information

- Semester and Year: Fall 2026
- Course Title: Introduction to Data Science
- Course Prefix and Number: AIM 111
- Section Number: 31413 (in-person), 31411 (online)
- Credit Hours: 3
- Start Date: Tuesday, 9/8/2026
- End Date: Friday, 12/18/2026
- Section 19082 (In-Person)
 - Room Number: CM-454
 - Meetings Days/Times: Thursdays, 10:30am-12:10pm (9/10/2026 to 12/17/2026)
 - Class Format: Hybrid, In-Person
- Section 19083 (Online)
 - Room Number: N/A – Class is held in Canvas (please see due dates in Canvas)
 - Meetings Days/Times: N/A – Class is held in Canvas (please see due dates in Canvas)
 - Class Format: Online, Asynchronously

Instructor Information

- Instructor: Professor Chris L. Santo
- Email: c.santo@scottsdalecc.edu
- Phone: 480-423-6123 (please use Canvas Inbox instead)
- Office Location: Room CM-425, Google Meet, or Discord
- Office Hours: Please see my faculty profile page for Office Hours
<https://directory.scottsdalecc.edu/santo-chris>

Course Description

Introduction to the basics of data science, including data handling, problem framing in a data-centric context, the foundational techniques of exploratory data analysis (EDA), data visualization, and data ethics. Students will gain practical experience in using various data science libraries and tools through hands-on exercises and projects.

Prerequisites and/or Corequisites

Prerequisites: A grade of C or better in (CSC101 and AIM100) or permission of Program Director.

Course Competencies

1. Apply appropriate data collection methods based on project needs.
2. Apply techniques to access, clean, preprocess, and normalize data using appropriate Python libraries and no-code tools.
3. Apply machine learning models to various data sets.
4. Illustrate appropriate visualizations for a data set.
5. Discuss ethical considerations and implications in data usage.
6. Evaluate suitable data representations based on the specific requirements of different data modalities.
7. Evaluate tabular data using exploratory data analysis (EDA) methodologies.
8. Explain insights derived from data, considering audience needs and context.

Texts and Course Materials

Required Textbook: Murach's Python for Data Science, 2nd Edition, by Scott McCoy. ISBN 978-1-943873-17-3. Cost is between \$40-\$60. The book can be purchased on the Murach publisher website, or Amazon.

The first edition, entitled Murach's Python for Data Analysis, by Scott McCoy. ISBN 978-1-943872-76-3. Cost is around \$20. The first edition is hardly changed at all from the second edition. You can be successful in this class if you can get your hands on a less expensive copy of the first edition.

There will be sections of other textbooks used in class. These textbooks will be provided for free, electronically, through the SCC Library.

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the [Student Regulations](#) page of the Maricopa Community College District website.

Late work is not accepted and will be scored as a zero. The due dates for all assignments are listed in Canvas. Assignments directly copied from other students or internet websites will be scored as zero.

Attendance Policy

Participation is required in on-line classes a minimum of once per week. Participation includes academic activities such as: submission of any assignment or posting to a discussion board.

Participation does NOT include: e-mailing the teacher, logging on to Canvas. You may be withdrawn from the course if you do not submit an assignment during any 7-day period.

Instructional Contact Hours and Minimum Course Expectations

Instructional contact hours are the weekly time students spend directly learning with their instructor or course activities. These activities include, but are not limited to, lectures, discussions, labs, group work, and viewing recordings. Instructional contact hours vary by course; refer to the [MCCCD course bank](#) for your course's details.

Minimum course expectations include the number of hours students are expected to spend outside of class (weekly) completing coursework. Students are encouraged to use the [Time Management Calculator](#) to help estimate their weekly time commitment for classes.

Canvas Cross-Listed Sections

Two sections (sections 31413 and 31411) of this course are combined on Canvas. You may interact with students from another class online or in-person. If you have questions, please contact me.

Course Technologies

View the [Accessibility Statements & Privacy Policies](#) of the technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- Student Maricopa Gmail Account

Synchronous Communication Tools

This course implements the use of web conferencing and/or other synchronous course tools.

- This course may use Google Meet, WebEx or Discord web conferencing to meet with the instructor or other students as needed.

Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

Student Assignment Tools

This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- Google Products, Microsoft Office 365
- ScreenPal/Loom
- KNIME (Windows or MacOS installation)
- Power BI (Windows-only installation)
- Chrome or Edge browser; Other browser-based tools as discussed in Canvas/in class

Generative Artificial Intelligence (AI) Policy

The World Economic Forum defines generative AI as “a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more.”

Some examples of generative AI tools include but are not limited to: ChatGPT, Google Gemini, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

Generative Artificial Intelligence (AI) Allowed in All Contexts

In this class, you are permitted to use generative AI tools to complete your assignments. When submitting work that incorporates generative AI content, unless it was specified in Canvas, please clearly indicate what content was generated by AI tools. If any part of this is confusing or uncertain, please reach out to me for a conversation before submitting your work.

Grading Standards and Practices

Grade Scale

Table 1 Course Grading Scale

Letter Grade	Points Range
A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Assignments

Table 2 List of Assignments

Assignment Name	Percent of Grade
Lab Assignments	~60%
Final Project	~40%
TOTAL:	100%

Note on Grading:
Assignment weight percentages are approximate, as lab schedules may be adjusted during the semester.

Important Requirement:
Successful completion of all components of the final project, strictly following the specifications outlined in Canvas, is required to pass this course. Incomplete or missing final projects will result in a course grade of F, regardless of performance on prior lab assignments.

Student/Instructor Interaction

In this course, you can expect regular and substantive interaction (RSI) that aligns with Scottsdale Community College's mission to provide challenging and supportive learning experiences and the US Department of Education's requirement for regular and substantive interaction (RSI) for online courses. My commitment to your success includes the following:

- Being available during regularly scheduled student support hours as stated in the syllabus.
- Sharing weekly information about the course materials, including key information, explanations, examples, and resources via in-person, recorded, and/or text-based lectures.
- Engaging in weekly discussions about course content within discussion boards in Canvas.
- Providing group or individual feedback regularly on assignments.
- Promptly responding to student questions about the course sent via email, or Canvas inbox.
- Regularly posting announcements about the course content and activities.
- Monitor your academic progress and communicate concerns, as needed.

Response Time

Students can expect a response time of **24-48 hours** for the instructor to respond to messages sent via the Canvas Learning Management System. Students can expect assignments to be graded within **one week** of the assignment's due date.

Tutoring

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the [Tutoring & Learning Centers](#) page for detailed information on the five learning centers' hours and procedures.

If you need to work with a tutor outside regular hours, online and hybrid students now have access to a 24/7 online tutoring service called Brainfuse. To access Brainfuse and begin working with a tutor, visit the [SCC Online Tutoring Services Through Brainfuse](#) page.

Informal tutoring from your fellow students and your instructor is available on the CSC (Computer Science) Discord Server. Join the Discord at the following link: <https://discord.gg/bjeebSyPQy>

MCCCD Policies

MCCCD is committed to providing a safe, fair, and accessible environment for all students. This includes laws such as the ADA and Title IX, which protect against discrimination. These statements explain your rights, available support, and where to go for help or more information. Please review the following policies:

Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act (ADA), the Maricopa County Community College District (MCCCD) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. physical, sensory, neurological, chronic illness, mental health, learning disabilities, or other health concerns). If you require accommodation for this course, please contact [Disability Resources and Services](#) (DRS) at your college.

Contact with [DRS](#) should be made as soon as possible to ensure academic needs are met in a reasonable time. Additional information can be found in the [Non-Discrimination Statement](#) and [MCCCD Non-Discrimination Policies](#).

[Addressing Incidents of Title IX Sexual Harassment](#)

Students are responsible for the information contained in this syllabus, the Syllabus page in the Canvas course, and the College Policies & Student Services page located under SCC Student Resources in the Canvas course navigation menu. The instructor will notify students of any changes to course to course requirements or policies.