

**Syllabus for CODE220**

Community Engagement with Science – Face to Face

Fall 2023

[Time]

[Location]

## About the Instructor

Name: Dr. Maurina Aranda

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Office Hours: xxx

## **Instructor Bio**

I am a first-generation college-going Latina who grew up rural Michigan. I attended a small liberal arts college, Alma College, for my B. S. in Biology and went to Purdue University for my Ph.D. in Molecular Signaling and Cancer Biology. I came to SIUE in 2019, where I teach both biology and science education courses. My research interests are largely focused in identifying ways to improve student knowledge of biology, and you will see these learner-centric approaches to support your learning in this class.

## Welcome

***Welcome to CODES 220! This is an important class that provides foundational science to help you address your research problem. I intend to help you succeed and thrive through inclusive pedagogy, communication, practice, and collaboration.***

Community-Oriented Digital Engagement Scholars (CODES) is a pathway for motivated students in all fields and majors to use their general education credits to work alongside community organizations to study and address the world’s most pressing problems. CODES students meet each semester in research-team courses facilitated by their mentoring professor and a community organization to address major social problems in our region. Teams analyze, visualize, and share their work with the broader public using skills central to the digital humanities, including data mining, mapping, storytelling, networking, and cultural analytics.

This core CODES course will serve as an introduction to science and will help you understand how to integrate the scientific method to gather evidence and solve your research problem. Students will apply these concepts and learn how they are relevant to them, their communities, and the world. These topics will also allow students to learn about viewpoints and ideas that may differ from their own and make informed decisions about scientific topics in the world. Topics will be reinforced in class where students will practice inquiry-based and knowledge-building activities that you will be able to apply as you work on-site in your research team course this spring.

## **Co-Requisites and Pre-Requisites**

Students must have completed the first four courses in the CODES sequence with a C or better before enrolling in CODE220, including CODE120, CODE121, CODE122, and CODE123. There are no co-requisites with this course.

# Catalog Description

Introduces scientific methods as a means of gathering evidence and make informed decisions about scientific topics as they relate to research problems.

# Course Goals

* Develop critical thinking skills that lead to the understanding of basic science principles
* Build confidence in learning and understanding science
* Appreciate science and its relevance to solving problems
* Learn science application through readings and discussion

# Course Materials

**Textbook:** *Essential Environment: The Science Behind the Stories.* Withgott & Laposata, *6th Edition.* 2019

**Blackboard (Bb):** Blackboard is the web-based course management system used at SIUe. This is your **primary source of information** regarding the course. Through Blackboard, you may access the course syllabus and schedule, class slides in PDF format, homework assignments, your grades, links to online resources, announcements, and other materials relevant to the course. Access the Blackboard site by going to <http://bb.siue.edu/>. Your Blackboard login is your email username and your Blackboard password is your email password. Additional Blackboard resources include:

* Blackboard Student Orientation Site: <http://www.siue.edu/its/bb/index.shtml>
* Blackboard Help Line: 618-650-5500

## **Communicating with the Instructor**

Email (maarand@siue.edu) is the preferred method of contacting me. I check my email throughout the day and a few times on weekends. I try to respond to student emails within 48 hours. Here are some pointers for emailing me (and your other course instructors).

* It is important that you include “CODE220” and a brief explanation of the nature of the email in the subject line.
* Include a salutation! At the university level, the safest way to start an email is Dear Professor.
* Sign your name (email addresses are sometimes hard to decipher)

# **Course Components and Requirements**

Course lecture material will be available online through Blackboard. Lecture materials will include lectures and in-class activities/exams during class times where attendance is required. It is expected that you attend and participate in this class. Although I will generally follow the order of material in selected chapters of the textbook (see schedule below), additional information and examples will be presented in lecture and some sections will be discussed in less detail or may be skipped completely.

## Grading

Rubrics for assignments will be available in Blackboard at least 2 weeks before the assignment is due. Most grades will be posted within 48 hours of the assignment due date. Some assignments may take longer to grade.

**Grading scale**

**Grade Percentage Range**

A 89.5-100.0

B 79.5-89.49

C 69.5-79.49

D 59.5-69.49

F less than 59.5

Your grade for the course will be based on the following:

 In-class Activities 25%

 Exam I 10%

 Exam II 10%

 Exam III 10%

 Final Exam 15%

 Research Project 30%

 **Total 100%**

## Activities

Activities can include in-class activities and readings assigned outside of class. Most of these activities will serve as a form of formative assessment for me to gauge your understanding of material. There will be many opportunities to earn credit for classroom activities. I understand that life happens and there may be instances where you are not present in class and miss an assignment; however, a *few missed assignments will not impact your grade!* There will be a lot of opportunities to do well in this class.

## Research Project

Students will write a 5-page single-space essay discussing how the class’s content can directly contribute to their research team’s research problem. The bibliography/works cited page DOES NOT count as one of the 5 pages. Students must cite at least 10 sources besides the ones used in class to reinforce their argument (journal articles, government/ organization websites (not Wikipedia), etc.). This assignment will be due on the last day of class. The assignment can be turned in as a group for those working on the same project. There will be several assignments due beforehand to support you in writing this research report. See the schedule below for the pertinent due dates.

**Lecture Exams**

There will be 3 lecture exams worth 100 pts each, and a final exam worth 150 points. Your score on these exams will be weighted according to the grading scale. The format will include multiple choice and open-ended responses. Students are required to complete the lecture exams in the time designated in the course schedule unless accommodations through ACCESS have been granted.

# Course and University Policies

## **Class Culture**

My goal is to cultivate a respectful classroom culture where we can share ideas and learn from each other. To support this environment, here are some simple rules to follow. These are subject to change with the needs of the students.

* **Practice self-care.** Take care of your physical and emotional needs.
* **Be fully present.** Bring your authentic self into this space.
* **Self-monitor your participation.** Consider taking more space if you are being quiet and holding back a bit if you are sharing a lot.
* **Strive to demonstrate civility, empathy, and kindness across differences.** Work an issue, not a person. Conflict can be constructive and beneficial.
* **Lean into discomfort.** Embrace the uncomfortable as a pathway for growth.Trust the processeven when you are not sure where it’s going.
	+ **Reflect** before you express an emotional response and reread what you have written to be sure it is professional. Communicate as if your comments are printed in a newspaper. This same policy applies to oral communication.
	+ **Foster community.** Share your ideas and contribute to ongoing discussions. Make comments that add to, not detract from, a positive learning environment for the course.
	+ **Be constructive.** Challenge ideas and the course content but do so in positive ways. It’s fine to disagree, but when done politely you stimulate and encourage helpful discussion, and you maintain positive relationships with fellow students.

## Academic integrity/plagiarism

Plagiarism is the use of another person’s words or ideas without crediting that person. Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, or dismissal from the University, per the [SIUE academic dishonesty policy](http://www.siue.edu/policies/1i6.shtml). Students are responsible for complying with University policies about academic honesty as stated in the [University’s Student Academic Conduct Code](http://www.siue.edu/policies/3c2.shtml).

### **Turnitin**

This course will utilize the Turnitin plagiarism detection software for your research report. A Turnitin link will be available where written work is to be submitted in the course. [Find out more about using Turnitin](https://kb.siue.edu/page.php?id=62087).

### **Late or Missed Assignments**

I understand that life happens and there may be times when you miss an assignment. I will allow students to submit their Concept Checks for partial credit – other late assignments will not be accepted.

## Policy for Disputing Grades

Students may dispute a grade on an assignment, exam, or research report. However, the dispute must be brought to my attention within ONE week of the graded item being returned to the students. Please know that re-grades may result in a lower score, as the entire assignment will be re-graded. Likewise, to receive an exempt due to a deemed excused absence, all appropriate documentation must be received by the course instructor within one week of the date of the desired exemption.

**Missed Exam**

If a student misses an exam, then they will complete a make-up exam**.** This will NOT be the same exam students received in lecture during the normal examination time – but will cover the same topics. This exam will be a written exam with all short-answer questions.

## Services for Students Needing Accommodations

It is the policy and practice of Southern Illinois University Edwardsville to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content or the use of non-captioned videos—please contact Accessible Campus Community and Equitable Student Support (ACCESS) as soon as possible. In order to properly determine reasonable accommodations, students must register with ACCESS either online at [siue.edu/access](http://siue.edu/access) or in person in the Student Success Center, Room 1203. You can also reach the office by emailing us at myaccess@siue.edu or by calling 618-650-3726.

As an enrolled SIUE student, you have a variety of support available to you, including:

* [Lovejoy Library Resources](http://www.siue.edu/lovejoylibrary/)
* [Tutoring Resource Center](https://www.siue.edu/soar/tutoring.shtml)
* [The Writing Center](http://www.siue.edu/lss/writing/index.shtml)
* [Academic Advising](http://www.siue.edu/advising/)
* [Financial Aid](https://www.siue.edu/financialaid/)
* [Campus Events](http://www.siue.edu/events/)
* [Counseling Services](https://www.siue.edu/counseling/)

If you find that you need additional support, please reach out to me.

## Cougar Care

Dealing with the fast-paced life of a college student can be challenging, and I always support a student's decisions to prioritize mental health. Students have access to counseling services on campus (Student Success Center, 0222). Make an appointment by visiting [cougarcare.siue.edu](http://cougarcare.siue.edu/) or by calling 618-650-2842.

## Diversity and Inclusion in the CODES Program

This pathway deliberately seeks to be on the cutting-edge of diversity efforts at the university, hence the racial demographics of CODES exceed the standards of most other classes and programs on campus. All students and faculty have the responsibility to co-create a classroom that affirms inclusion, equity, and social justice, where racism, sexism, classism, ableism, heterosexism, xenophobia, and other social pathologies are not tolerated. In addition to fully supporting the University's [diversity statement](https://www.siue.edu/about/mission-goals-plans/diversity.shtml), we plan to participate in regular conversations throughout the semester to consider additional barriers and opportunities associated with the evolving nature of diversity, equity, and inclusion initiatives both on campus and more broadly.

**SIUE Diversity Commitment**

SIUE is committed to respecting everyone’s dignity at all times and dismantling systems of oppression that permeate institutions in our society. In order to learn, exchange ideas, and support one another, our virtual and physical classrooms must be places where students and teachers feel safe and supported.   All students and faculty have the responsibility to co-create a classroom that affirms inclusion, equity, and justice, where racism, sexism, classism, ableism, heterosexism, xenophobia, and other forms of discrimination are not tolerated. Violations of this policy will be enforced in line with the SIUE Student Conduct Code (<https://www.siue.edu/policies/3c1.shtml>).

The Center for Student Diversity & Inclusion (<https://www.siue.edu/csdi/>) is an excellent resource for support and community. If you experience or witness discrimination or harassment, you can reach out to Ms. Jamie Ball, director of the Office of Equal Opportunity, Access and Title IX Coordination (<https://www.siue.edu/eoa/>), by e-mail at jball@siue.edu or by calling 618-650-2333. You can also report bias incidents using this online form (<https://www.siue.edu/birt>).

# CODES Partners

CODES is a partnership between several University programs and Centers; members of these University groups will make frequent appearances in and provides support for your CODES courses.

## The IRIS Center

The IRIS Center at SIUE is an interdisciplinary facility designed to support scholarship and teaching that applies digital content as a primary methodology. IRIS Center staff offer instructional sessions on a variety of tools and software, and students can visit the center for support in designing digital projects. The IRIS Center is particularly invested in opportunities for students to learn by doing; our students have complete fieldwork abroad, work with rare books, and serve as mentors for digital humanities clubs at secondary schools. In IRIS, students learn skills applicable to future careers like writing for the web, web development, and data visualization. Visit <https://iris.siue.edu> to learn more about the IRIS Center.

## SIUE Successful Communities Collaborative

SIUE Successful Communities Collaborative (SSCC) is a cross-disciplinary program that supports yearlong partnerships between Illinois communities and SIUE to advance local resiliency and sustainability based on community-identified environmental, social and economic issues and needs. SSCC's mission is to connect Illinois communities with SIUE students and faculty. The SSCC team is eager to support you and your cohort. Visit <https://www.siue.edu/successful-communities/index.shtml> to learn more about SSCC and the resources it has available to support your work.

## The SIUE Truth, Racial Healing and Transformation Campus Center

The SIUE Truth, Racial Healing and Transformation Campus Center (TRHT) seeks to dismantle a hierarchy of human value by connecting community agencies already engaged in anti-racism work, establishing new relationships between those community agencies and SIUE, and preparing students to work alongside community members as agents of social change. As equal partners with all stakeholders, we establish authentic, trusting relationships for the upbuilding of sustainable communities where people of all backgrounds can thrive. Visit <https://www.siue.edu/provost/trht/index.shtml> to learn more about TRHT, its goals, programs, and initiatives.

# Course Schedule

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| **Week** | **Lecture Topics** | **Important Due Dates** |
| **1:** 8/21 – 8/27 | Science and Sustainability: An introduction to science |  |
| **2:** 8/28 – 9/3 | Environmental systems: matter, energy, and ecosystems |  |
| **3:** 9/4 – 9/10 | Evolution, biodiversity, and population ecology | **5 Paper Citations: 9/10** |
| **4:** 9/11 – 9/17 | Ecology of Communities | **Lecture Exam I: 9/15** |
| **5:** 9/18 – 9/24 | Economics, policy, and sustainable development |  |
| **6:** 9/25 – 9/30 | Human population |  |
| **7:** 10/2 – 10/8 | Soil, agriculture, and the future of food | **10 Paper Citations: 10/8** |
| **8:** 10/9 – 10/15 | Biodiversity and Conservation Biology | **Lecture Exam II: 10/15** |
| **9:** 10/16 – 10/22 | Forests, forest management, and protected areas |  |
| **10:** 10/23 – 10/29 | Environmental health and toxicology | **Annotated Bibliography: 10/29** |
| **11:** 10/30 – 11/5 | The atmosphere, air quality, and pollution control |  |
| **12:** 11/6 – 11/12 | Global climate change | **Lecture Exam III: 11/10** |
| **13:** 11/13 – 11/19 | Nonrenewable energy sources and renewable energy alternatives | **Research Paper Draft: 11/19** |
| **14:** 11/20 – 11/26 | **Thanksgiving Break** |  |
| **15:** 11/27 – 12/3 | Managing our waste |  |
| **16:** 12/4 – 12/10 | The urban environment: creating sustainable cities | **Research Paper: 12/8** |
| **Final Exam: \_\_\_\_\_\_\_\_\_\_\_** |