



2022 Spring Semester

Course Name: Quantitative Reasoning

Course Number and Section: MAT 130.81

Number of Credits: 4

Days Class Meets: Monday and Wednesday

Meeting Times:

Location/Venue: LeTarte Center, Room 14

Instructor: David Lauback

Contact Phone: Text @kgk37c to 81010 to join our class using the Remind app.

Contact Email: laubackdavidj@jccmi.edu

Online Office Hours: To be determined in order to maximize student availability

Course Description

Quantitative Reasoning develops student skills in analyzing, synthesizing and communicating quantitative information. Cultivates algebraic reasoning and modeling skills through a quantitative literacy lens. Emphasizes critical thinking and the use of multiple strategies in applied contexts. Topics include proportional and statistical reasoning, probability, and evaluation of bias and validity.

Prerequisite(s)

MAT040

Course Goals

Quantitative Reasoning is not your traditional lecture course. Expect to be discovering concepts, solving problems, working collaborative in small groups, and sharing ideas with the whole class. Also, expect to read challenging mathematical content every day. Your instructors will be guiding and supporting along the way, but rarely will they spoon feed the answers. Be prepared to discover that you are good at math and your contributions to the class matter.

Course Objectives

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges

and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs addressed in this class is GEO 3: Demonstrate computational skills and mathematical reasoning and the course objectives include the following:

1. Reason, model, and draw conclusions or make decisions with mathematical, statistical, and quantitative information.
2. Interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
3. Critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
4. Increase comfort and facility with numeracy, the processes and skills of mathematics.
5. Experience mathematical challenges and use the tools required to persist and succeed through them.
6. Use appropriate technology in a given context.
7. Draw conclusions and/or make decisions based on analysis and critique of quantitative information using ratios or proportional reasoning.
8. Draw conclusions and/or make decisions by analyzing and/or critiquing mathematical models, including situations for which the student must recognize underlying assumptions and/or make reasonable assumptions for the model.
9. Apply probabilistic reasoning to draw conclusions, to make decisions, and to evaluate outcomes of decisions.
10. Draw conclusions or make decisions and communicate their rationale based on understanding, analysis, and critique of self-created or reported statistical information and statistical summaries.

Textbook

- Sobecki/Mercer: *Math in Our World: A Corequisite Approach*, 2nd Ed. (McGraw-Hill) (ISBN: 978-1-260-72785-2).
- Digital Format: This text is available in a digital format to rent or purchase through the JC Bookstore. Please see the links posted on your class JetNet site.
- Please review the cost of your required materials to determine the best option for you to purchase your materials.

Please note, your opt out selection is for your *entire* semester schedule. You cannot opt out/opt into individual courses. And you must opt out by the due date of your first class, which is the 3rd day after the start of your earliest course.

[Learn new textbook program at JC](#)

For account billing questions, please contact the Jackson College Cashier at jccashier@jccmi.edu

Extras

- MAT130 Coursepack (Includes worksheets and reviews)
 - o Print version available from the bookstore
- **Or**
- o Digital version available in JetNet
- Required Technology
 - o Laptop with Microsoft Office (free download via your JC account) or Google Workspace
 - o Webcam for proctored exams via Respondus or Zoom

- o Calculator (You do NOT need a graphing calculator for this course. We will be using Desmos for all graphing.)
- **Please note: Access to a computer with Internet is required for this section of Math 130.** We will be doing homework, projects, and possibly some quizzes online.

Exam Process - Respondus

In the event that exams must be taken outside of class, students will be required to take exams using Respondus Lockdown Browser and Monitor to protect the fairness and integrity of the exams. This is an online test proctoring software that requires a download to your computer. Training and practice of Respondus technology will be provided in advance of the first exam. A Mac or PC that has a webcam and microphone is required to use Respondus. If you do not have this technology, please contact your instructor right away.

Grading Procedure

A 2.0 or "C" is a passing grade. Only courses with passing grades count toward graduation. Other colleges transfer in only courses with passing grades. Many financial aid sources, including most employers, require passing grades. Additionally, earning less than a 2.0 in a class results in being unable to participate in the next level of courses in a discipline which requires this course as a prerequisite. Registering for the next course sequence without passing the prerequisite course may result in you being dropped from that class.

Grading Scale

Grading Scale:		Grading Policy:
90 - 100%	4.0	Class Participation: 6%
85 - 89%	3.5	Online ALEKS Pie: 12%
80 - 84%	3.0	Worksheets: 12%
75 - 79%	2.5	Project 1: 12.5%
70 - 74%	2.0	Project 2: 12.5%
65 - 69%	1.5	Project 3: 12.5%
60 - 64%	1.0	Project 4: 12.5%
50 - 59%	0.5	Midterm & Cumulative Final: 20%
0-49%	0.0	

Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism

Plagiarism is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating

Cheating is defined as obtaining answers/material from an outside source without authorization. Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of our classes please e-mail the Center for Student Success at JCCSS@jccmi.edu or visit the [Center for Student Success web page](#).

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College

students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

Support

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

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Oasis Center

During a student's college experience, one might encounter situations that impact their learning environment. When these situations occur, support from the Oasis Center is available to provide short-term assistance. If the situation requires ongoing support, the Oasis Center staff can provide that level of support or will assist the individual in securing an outside agency to provide it.

For more information visit the Jackson College Oasis Center webpage <https://www.jccmi.edu/the-oasis-center/>

Health Clinic

Jackson College has partnered with Henry Ford Allegiance Health to offer healthcare to Jackson College students and employees. The Jackson College Health Clinic (JCHC) is located on Central Campus in the Justin Whiting Hall, Room 111. The caring and professional staff at the JCHC provides quality healthcare, including annual exams (physicals, program physicals and sports physicals), acute and chronic illness care and preventative health care (It's Your Life).

For more information visit the Jackson College Health Clinic webpage <https://www.jccmi.edu/health-clinic/>

Dental Clinic

Community members may utilize Jackson College Dental Hygiene Clinic, which offers dental hygiene services while helping students gain experience. Students work under the supervision of license dental hygiene instructor and dentist as they offer preventative services.

For more information visit the Jackson College Dental Clinic webpage <https://www.jccmi.edu/dental-hygiene/dental-hygiene-dental-clinic/>

Help

Available learning services or opportunities for students seeking help with their course work. May include information about tutors, learning centers, reserved library materials, counseling services.

Academic Advising

Student success navigators serve not only as academic advisors but as a student's academic, financial, and total resource advocate or coach.

Students will have an assigned navigator to meet with for advising and any questions they may have. Navigators will serve as the "go-to" person to help students throughout the college experience.

It is important to know your Student Success Navigator. You may find your Navigator by visiting this website <https://www.jccmi.edu/academics/academic-advising/> and click on your pathway. You should also receive an email from your Navigator at the beginning of the semester.

Student Responsibilities

- **ALEKS Pie (online):** The ALEKS pie is an adaptive learning tool that tailors content based on the individual readiness of each student. Your grade will be 75% based on meeting the lesson due dates and 25% completion of the pie.
- **Participation:** Students are expected to regularly participate in class. This means contributing to discussions and ideas shared in class, as well as completing tasks assigned during class.
- **Worksheets:** Paper worksheets are assigned for each lesson. These worksheets might be completed during class or taken as homework. The worksheets will be graded for correctness.
- **Projects:** A major project for each unit will be used to assess student understanding of the material covered. The project should be completed throughout the unit and will be submitted after the unit is covered. Each project will be unique to the student.
- **Midterm & Final Exams:** A cumulative midterm and final exam will be administered halfway through the class and at the end, respectively. The exams will focus on both skills and conceptual understanding of key concepts. The midterm will cover units 1 and 2 and the final will cover units 1 through 4.

Attendance - Participation Policy

Regular class participation and keeping up on the reading and assignments is strongly correlated with survival in college. It is my recommendation that you plan to do your assignments BEFORE the last day they are due. If problems occur, there is time to fix them before the deadline.

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be monitoring student participation on a regular basis and officially reporting student activity throughout the term to assure compliance with college policy and federal regulations. It is imperative that you attend class and actively participate within the first couple of days of the term to validate your enrollment in the course. After that, not actively participating in class for two weeks or more may result in you being withdrawn from the course. Being withdrawn from a course can have an impact on financial aid, billing, athletic eligibility, and housing status. As a college student you are responsible for how your participation impacts your academic progress; the accountability lies with you.

Caveat

Please note: The format and timing of this course may need to change due to unforeseen circumstances. In particular: school closings, instructor illness, weather, or other situations that may arise. If you are taking

an in-person class, you will be required to complete a Reintegration Video Training course in JetNet prior to being admitted to campus. All COVID safety protocols in place are based on current guidelines and will be enforced while students are on campus.

Calendar

We will do our best to follow this calendar, but these dates may change due to unforeseen circumstances.

WEEK #	DATE	TOPIC
1	1/9-1/15	Lesson 1.1, 1.2
2	1/16-1/22	Lesson 1.3, 1.4
3	1/23-1/29	Lesson 1.5, 1.6
4	1/30-2/5	Lesson 1.7, 2.1
5	2/6-2/12	Lesson 2.2, 2.3
6	2/13-2/19	Lesson 2.4, 2.5
7	2/20-2/26	Lesson 2.6, 2.8
8	2/27-3/5	Midterm
9	3/6-3/12	Mid-Semester Break: No classes
10	3/13-3/19	Lesson 3.1, 3.2
11	3/20-3/26	Lesson 3.3, 3.4
12	3/27-4/2	Lesson 3.5, 3.6
13	4/3-4/9	Lesson 4.1, 4.4
14	4/10-4/16	Lesson 4.5
15	4/17-4/23	Lesson 4.6, 4.7
16	4/24-4/30	Final Exam

Important Dates:

MONDAY 03/07/2022- FRIDAY 03/11/2022	MID-SEMESTER BREAK - NO CLASSES
SUNDAY 04/30/2022	END OF SPRING SEMESTER