MAT 141-90Z2 (3 Credit Hours)

Liberal Arts Mathematics

83520

2024 Fall (12 Weeks)

# Instructor: Christopher Sears

# Email Address: [christopher.sears@kctcs.edu](mailto:christopher.sears@kctcs.edu)

# Phone Number: 606-301-6154

# Office Location: Maysville Campus, Science Building, Room S-201B

# Office Hours

| **Day** | **Hours Available** |
| --- | --- |
| Monday | 12:00pm-2:00pm |
| Tuesday | 9:00am-12:30pm |
| Wednesday | 12:00pm-2:00pm |
| Thursday | 12:00pm-2:30pm |
| Friday | By Appointment |

# Appointments

Schedule a phone, email, virtual or face-to-face meeting with me at: <https://meetme.so/ChristopherSears>.

# Official Course Description

Serves as a course in quantitative reasoning and problem solving intended for liberal arts majors. Includes voting methods, apportionment, interest and investments, probability, statistics, and geometry. (Students may not receive credit for both this course and MAT 146.)

# Course Prerequisite

College Readiness or concurrent enrollment in MAT 141-S.

# Course Learning Outcomes

Upon completion of this course, the student can:

1. Compare and contrast a variety of voting methods, including majority, plurality, runoff, Borda count, and pairwise methods.
2. Determine the winner of an election from a preference schedule using the methods aforementioned.
3. Solve real-world problems related to apportionment.
4. Calculate interest on investments and loans and other financial tools, including amortization schedules.
5. Calculate the probability of outcome of an event with and without replacement, combinations and permutations.
6. Apply the Law of Large Numbers to critical thinking problems.
7. Calculate and interpret basic descriptive statistical measures such as mean, median, mode, range, variance, standard deviation, and determine z-scores from a normal distribution.
8. Solve problems using basic two- and three-dimensional geometry.
9. Solve geometry problems using similarity, scalability, and Pythagorean Theorem.

# General Education Information

**MAT 141** specifically addresses the following Student Learning Outcomes from the General Education Competencies:

* Interpret information presented in mathematical and/or statistical forms. (Gen Ed Comp B)

# Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Quality Enhancement Plan (QEP) Update:

MCTC is accredited through the SACSCOC and was reaffirmed by the Commission in 2019. As part of the reaffirmation of accreditation process, a comprehensive QEP was developed at MCTC focusing on Problem-solving Skills.

The MCTC students will improve problem-solving skills by learning to:

* Examine the evidence
* Define the problem
* Identify strategies
* Analyze potential solutions
* Implement the solution
* Reflect on the outcome

# Kentucky Graduate Profile and Essential Skills:

The Council on Post Secondary Education (CPE) has identified the following learning outcomes that are considered essential to the success of students in higher education as they prepare for the workforce:

1. Communicate effectively.
2. Think critically in order to solve problems and create new ideas and solutions.
3. Apply quantitative reasoning skills to analyze and solve numerical problems.
4. Interact effectively with people from diverse backgrounds.
5. Adapt to changing circumstances while leading and supporting others.
6. Perform professionally within their chosen field of study or occupation.
7. Engage in civic life to improve society.
8. Collaborate and work in teams.
9. Apply academic knowledge, skills, and abilities to their chosen career.
10. Use information for decision making.

**Liberal Arts Mathematics** specifically addresses the following Essential Skills: **3.**

# Course Outline

Selected topics from Chapters 8 – 14.

# Text(s) and Supplies

*Mathematics All Around (7e)*, Tomas Pirnot (2022), ISBN: 9780136921950

Access to the textbook is electronic and is granted upon enrollment in this course. A paper copy of the textbook is optional.

MyLabs Math access is required for this course. Access is granted automatically when enrolling in the course. You will access MyLabs Math through Blackboard.

You will need a scientific calculator for this course. A cellphone may not be used as a calculator.

# Evaluation and Grading Policy

Grades will be calculated as a weighted average of homework, unit quizzes, proctored exams, and progress reports. Your course grade will be calculated with the following weights:

Class Exams: 40%

Homework: 20%

Quizzes: 20%

Final Exam: 20%

The scale below shows the relationship between your semester percent average and the letter grade you will receive.

| **Grade** | **Range** |
| --- | --- |
| A = | 90% and above |
| B = | 80% and above |
| C = | 70% and above |
| D = | 60% and above |
| E = | Below 60% |

**Class Projects:**

There will be three class projects. Each class project will be announced at least one week ahead of time. Each class project will carry equal weight. **Class projects will not be accepted after the due date.**

**Quizzes:**

There will be a chapter quiz after each chapter. Quizzes are on MyLabs Math. Chapter quizzes will be timed. The time limit will depend on the quiz. You will have three attempts on each quiz, with the highest score counting toward your final grade. Quizzes are due two weeks after they are assigned.

**Homework:**

Homework is on MyLabs Math. All homework will be due two weeks after it is assigned.

**Final Exam:**

The final exam will be held on finals week according to the published final exam schedule.

# Attendance Policy

You must start at least one homework assignment to not be counted as a no-show for the class.

# Late Work Policy

No late work will be accepted.

# Withdrawal Information

## KCTCS Withdrawal Policy

KCTCS Policy states a W: represents a withdrawal from class without completing course requirements. A student may officially withdraw from any class up to and including the date of mid-term with a W grade.

The Midterm Date or the last day for students, at their discretion, to officially withdraw from this course and receive a grade of W is: October 27, 2024.

After the date of midterm and through the last class of the semester or session, any student may officially request to withdraw from a course and receive a W which may be given at the discretion of the instructor. Each instructor shall state on the first or second class meeting the factors to be used in determining if a student will be allowed to withdraw during the discretionary period. An instructor shall not assign a student a W for a class unless the student has officially withdrawn from that class in a manner prescribed by the college. A grade of W may be assigned by the College Appeals Board in cases involving a violation of student academic rights or for academic offenses.

## Instructor’s Withdrawal Policy (After Midterm):

After midterm, permission to withdraw will only be granted if a student has been regularly attending and participating in class or has an extenuating circumstance. The last day for students, with instructor’s permission, to officially withdraw from this course and receive a grade of W is December 6, 2024.

## Directions for submitting a withdrawal request:

Students must submit a course withdrawal through their Student Self-Service.   
Log into your Student Self-Service through [MYPATH](https://mypath.kctcs.edu/).

Click on the Manage Classes Tile.

Click on Drop Courses and follow the instructions.

You will receive an email when the process is complete.

# College Statement Regarding Flexible Instructional Delivery:

The College must remain flexible to meet challenges that may include epidemics, pandemics, natural disasters, human-influenced disasters, and any and all threats to the College campus, students, employees, and surrounding communities. To ensure the safety and well-being of our constituencies, the College maintains the right to move classes temporarily or permanently to online, remote platforms; to a hybrid section that includes some face-to-face learning and some remote learning; or to a different campus, location, building, or time. Additionally, the College reserves the right to institute plans or practices in the physical classroom/lab/activity spaces and common areas to protect students and faculty. The College will attempt to make these changes as minimally disruptive as possible, but the College reserves the sole right to alter the particular type, place, or time for their classes.

# MCTC Diversity, Equity, and Inclusion Statement

Maysville Community and Technical College is dedicated to creating a learning environment that recognizes the dignity and value in all people and all groups. All MCTC courses encourage effective interaction with people from diverse backgrounds. In this class, students have the right to learn, study, grow, and develop without fear of threats, harassment, bullying, or discrimination on the basis of race, ethnicity, color, nationality, age, religion, gender, gender identity, gender presentation, sexual orientation, or military service. In this course, everyone will be treated with civility and recognized as individuals and will treat others with respect and civility. The diversity that students bring to this class is viewed as a resource, strength, and benefit. MCTC is committed to a community of learning where students and ideas do not simply exist but flourish and thrive.

# Accessibility Services

MCTC strives to make learning experiences accessible to all participants and is committed to providing reasonable accommodations for all persons with disabilities. If you are seeking accommodations for this course under the Americans with Disabilities Act (ADA), you are required to contact [MCTC Accessibility Services](mailto:MCTCAccessibilityServices@kctcs.edu) and complete the online [Accommodation Request Form](https://maysville.kctcs.edu/about/student-life/student-support-services/accessibility-form.aspx). Please do not request accommodations directly from your Instructor without a letter of accommodation from the Accessibility/Disability Services Office. If you are a student from a KCTCS college other than MCTC, contact your Home College for establishing disability accommodations. You can find your Home College’s Accessibility/Disability Services Office contact information on the [KCTCS Disability Services website](https://kctcs.edu/current-students/academic-resources/disability-services.aspx). Your Home College will communicate with your Instructors and Accessibility/Disability Services Office to provide you with reasonable and appropriate accommodations.

Your accommodations will begin after the Instructor has received confirmation of your accommodations from the Accessibility/Disability Services Office. Accommodations cannot be applied to your course retroactively.

For more information, please email [MCTC Accessibility Services](mailto:MCTCAccessibilityServices@kctcs.edu) or contact a member of our [Student Success Team](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmaysville.kctcs.edu%2Fcurrent-students%2Fstudent-resources%2Fsuccess-coaches.aspx&data=05%7C01%7Cbeth.weiss%40kctcs.edu%7C1d76795ae232476fda4e08da43f343b7%7Cf2e339511ec44c72b2bfa4f4671d64af%7C0%7C0%7C637897009355105104%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=47hBfenpWQwl9qSax1i0iISAf%2Fu%2FovjDovQE7M0tXJY%3D&reserved=0).

# KCTCS Student Code of Conduct

Kentucky Community and Technical College System (KCTCS) faculty and students are bound by principles of truth and honesty that are recognized as fundamental for a community of teachers and scholars. The college expects students and faculty to honor, and faculty to enforce, these academic principles. The college affirms that it will not tolerate academic dishonesty including, but not limited to, violation of academic rights of students and student offenses. Students may refer to the KCTCS Code of Student Conduct: [KCTCS Student Code of Conduct](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpolicies.kctcs.edu%2Fcode-of-conduct%2F&data=05%7C01%7Cbeth.weiss%40kctcs.edu%7C607ba6748c1b444493aa08da43155692%7Cf2e339511ec44c72b2bfa4f4671d64af%7C0%7C0%7C637896056171595332%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=OOq0aVoLx2%2BX%2F1hEHSJgI7TN4TaviFPcclpuA00cmQc%3D&reserved=0)

Information on student rights, academic offenses, and student’s right to appeal is also available on the MCTC “Current Student” web page: [MCTC Student Policies and Procedures](https://maysville.kctcs.edu/current-students/policies-procedures.aspx)

Hard copies are available in the Student Development Office.

## Cheating

Using an electronic device or other materials without permission during an exam will be considered cheating regardless of intent. Other forms of cheating will include, but are not limited to: having information available in any non-approved form, such as papers, books, notes, materials hidden in apparel, written on self or desks, tabbing out to another computer screen, looking at other students’ work, communicating with other students in any manner

## Plagiarism

Collegiate work requires a strict standard of academic responsibility. While engaged in academic coursework, we encounter other people’s ideas. How we incorporate these ideas into our own work requires caution. When these ideas are not properly credited, this is referred to as plagiarism. Plagiarism involves the intentional and/or unintentional use of others’ words and thoughts without acknowledgement.

Examples of plagiarism:

* Turning in someone else’s work as your own
* Copying words or ideas from someone else without giving credit
* Failing to put a quotation in quotation marks
* Giving incorrect information about the source of a quotation
* Changing words or phrases (paraphrasing) while keeping the structure of a source without giving credit
* Copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not
* Using information or graphics from an internet site without citing your source
* Giving your rough draft to another person to revise or rewrite
* A form of plagiarism that is not always found in typical definitions is self-plagiarism. Self-plagiarism involves duplication of original essays in part or whole. Resubmitting written work that has previously been presented in another course is considered self-plagiarism. Self-plagiarism is as serious as other forms of plagiarism and will carry the same consequences.

If you are unsure whether or not a specific situation constitutes plagiarism, ask your instructor.

At MCTC plagiarism is a serious academic offense which can result in a student failing an assignment, failing a course, or being dismissed from the college. Be aware of your instructor’s rules and regulations concerning plagiarism, this can be found in your course syllabus.

Students are expected to exhibit honesty in all work. Students caught plagiarizing or cheating will be subjected to the disciplinary policy as stated in the KCTCS Student Code of Conduct.

Review these links for tips on avoiding plagiarism:

* MCTC Library Citation Guides: [Plagiarism](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Flibguides.maysville.kctcs.edu%2Fc.php%3Fg%3D109056%26p%3D705551&data=02%7C01%7Crita.thomas%40kctcs.edu%7C22ab4efc74914cf4f8c208d6daee682c%7Cf2e339511ec44c72b2bfa4f4671d64af%7C0%7C0%7C636937114811334036&sdata=WKgh%2FRsH6e83bapfNoZ1GDTinBB9E86F6wfsdOuLgec%3D&reserved=0)

# Division Chair Contact Information

The first step in any class dispute is to talk with the Instructor. If disputes cannot be resolved in this way or if you are having communication difficulties, you can contact the Division Chair for further guidance.

NAME: Dr. Angela Fultz

DIVISION: Mathematics and Natural Science  
Maysville Community & Technical College  
1755 US 68  
Maysville, KY 41056

606-356-0710

# Student Account and Services Information

## User Account Center Setup

You can access and manage your information online 24/7 through your User Account Center. You can activate your account, find your ID, and even reset your password. Login through: [KCTCS User Account Center](https://kctcs.edu/user/)

## Student Service Center

The Student Service Center is available all day, every day, online and on the phone.

Our specialist team is standing by to answer whatever questions you might have on Financials, Passwords, Blackboard, Learn on Demand... and more.

Call the Go KCTCS! Student Service Center anytime, 1-855-GO-9MCTC or login through: [KCTCS Student Service Center](https://maysville-kctcs.edusupportcenter.com/)

## Student Self Service Help

Log into MyPath and click on the Student Self-Service tile to take full advantage of all the Self-Service tools including: searching for classes; making payments; viewing your schedule, and more!

# Emergency, Safety and Wellness Information

In case of emergency call 911 or dial 9-911 from any campus phone.

Emergency Procedures are posted in each of the on-campus classrooms for students to review. Off-campus classes will follow the procedures of the facility in which they meet.

Students, please inform your emergency contacts who your instructor is, what class you are taking, and in what room the class is taught. This will expedite locating you if there is an emergency.

Other important safety information such as lockdown procedures and safety plan can be found online at our website under Student Life or at: [Campus Safety & Security](https://maysville.kctcs.edu/about/student-life/campus-safety.aspx)

## SNAP Alerts

Notification of a campus lockdown can be communicated via the (SNAP) Alert System. Snap stands for Safety Notification Alert System.   
*Site to register for* ***SNAP:*** [KCTCS SNAP](https://kctcs.edu/about/safety-security/snap/index.aspx)

1. There will be a P.A. announcement, if available.
2. All IP phones will announce and display the message.
3. All computers on MCTC network will display the message.
4. Anyone off campus that is signed up for SNAP should receive a text message and phone call and remain off campus.

## Green Dot

MCTC is committed to providing a safe environment for students, faculty, and staff and that is why we support Green Dot and work to prevent violence.

## Family Scholar House

As a student, your KCTCS college has partnered with Family Scholar House (FSH) to provide resources you can utilize on your path to success. The Family Scholar House Response Center is available to you Monday-Saturday 8 a.m. through 8 p.m. ET. Below are opportunities available to you at no cost when you call the Response Center with Family Scholar House: Apprenticeship & Academic Coaching, Advocacy Support, Health & Wellness Coaching, Career Coaching, and connection to community resources. Call us at 502.289.6384 or please email us at: [Info@FamilyScholarHouse.org](mailto:Info@FamilyScholarHouse.org). For more information, please visit the [Family Scholar House](https://familyscholarhouse.org/types-of-support/) website to see how we can support you.

## TalkCampus

As a student, you can download the TalkCampus App from Google Play or the App Store and create an account using your KCTCS student email address for free. TalkCampus provides MCTC students with 24/7 mental health support. TalkCampus is anonymous and based around peer support; you can use it if you need some help yourself or you can go on there and listen and support others. The platform is moderated and is designed as a safe place where you can just be yourself and talk about how you’re really feeling.

## kynect Benefits

Need financial assistance for groceries, childcare, or health care? Discover if you and your family qualify for kynect benefits! MCTC offers benefits navigators (kynectors) on our campuses to help you apply for Medicaid/KCHIP, the Kentucky Integrated Health Insurance Premium Payment (KI-HIPP) program, Qualified Health Plans (QHP), the Supplemental Nutrition Assistance Program (SNAP), and the Child Care Assistance Program (CCAP). Our kynectors can assist with SNAP/CCAP applications and Medicaid renewals, answer questions about eligibility, and provide guidance on these benefits. For more information, please visit the [kynector webpage](https://maysville.kctcs.edu/student-resources/kynector.aspx).

# Career Services

MCTC Student and Alumni Career Services supports students in their journey from education to employment. MCTC offers a comprehensive suite of resources designed to assist with career exploration, resume and cover letter writing, interview preparation, and work-based learning opportunities. Students can schedule one-on-one appointments, attend workshops and career fairs, and access job and internship postings. By leveraging these resources, students can effectively navigate the transition from MCTC to their chosen career paths, ensuring they are well-prepared to enter the workforce with confidence and competence. For more information, please visit the [MCTC Student and Alumni Career Services](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmaysville.kctcs.edu%2Fabout%2Fstudent-life%2Fcareer-services.aspx&data=05%7C02%7Cdana.calland%40kctcs.edu%7C03548c4f2e05470a20e108dc8579a809%7Cf2e339511ec44c72b2bfa4f4671d64af%7C0%7C0%7C638532004753243501%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=PEnbjJuvVGfK6if%2FSeioPlwLdqjC3qkPLgoiayqAjI0%3D&reserved=0) webpage.

# Transfer Opportunities

All students are encouraged to consider transferring to pursue further credentials. Earning additional credentials can enhance your employability and increase your earning potential. Many universities offer family housing or have nearby single-parent scholar housing, making it feasible for students with families to continue their education. Additionally, numerous universities provide scholarships specifically for transfer students who excel at community college. There are also many online degree options available. If you are interested in exploring transfer opportunities, please feel free to contact the [Transfer Center](https://maysville.kctcs.edu/current-students/academic-resources/transfer-center/contact-the-transfer-center.aspx) to help navigate this important step in your academic journey.