



# SOUTHWESTERN

AN OREGON COMMUNITY COLLEGE

<b>Course Title and Number:</b> MTH 105Z		<b>Instructor:</b> Benjamin Holt
<b>Year and Term:</b> Spring 2025	<b>Course Credits:</b> 4	<b>Office Location:</b> Sitkum 2C
<b>Office Phone:</b> (541) 888-7608	<b>Office Hours:</b> M: 10 am – 10:50 am 2 pm – 2:50 pm T: 10 am – 10:50 am W: 10 am – 10:50 am R: 10 am – 10:50 am	<b>Class Location:</b> Sitkum 4
<b>Meeting Time/Days:</b> MW 12:00 PM-1:50 PM		<b>Email Address:</b> benjamin.holt@socc.edu
<b>Web Page Address:</b> <a href="https://holt.blue/MTH_105/homepage.html">https://holt.blue/MTH_105/homepage.html</a>		<b>Fax Number:</b>

<b>Course Description</b>	<p>Prerequisite(s): ( MTH95 ) or ( MTH98 )</p> <p>An exploration of present-day applications of mathematics focused on developing numeracy. Major topics include quantitative reasoning and problem-solving strategies, probability and statistics, and financial mathematics; these topics are to be weighted approximately equally. This course emphasizes mathematical literacy and communication, relevant everyday applications, and the appropriate use of current technology. This course may be taken 1 time for credit.</p>
<b>Course Objectives Reflecting Expected Student Learning Outcomes</b>	<p>Solve financial application problems involving simple and compound interest, installment buying, loans, taxes, home buying, and investments.</p> <p>Calculate and interpret basic probabilities and expected values for decision making in the face of uncertainty.</p> <p>Discuss methods for gathering, organizing, and visualizing data to identify patterns and draw basic conclusions; distinguish between measures of center and variation.</p> <p>Recognize characteristics of data that are normally distributed and use the area under a normal distribution to compute probabilities.</p> <p>Use symbolic logic to analyze the validity of arguments and recognize common fallacies in reasoning.</p>
<b>Grading</b>	<p><b>Course Requirements:</b></p> <p><b>Online Homework and Practice:</b> For every section in the textbook listed in the syllabus course schedule (last page of this syllabus), there is a homework assignment. Every homework assignment will consist of 10 multiple-choice questions drawn randomly from a test bank of problems. To pass an assignment, you must get a grade of at least 70%. You may attempt the assignment as many times as you like. Each homework assignment is</p>



completed online where you will earn a pass code. You may complete the homework either in Canvas, or you may go to

[https://holt.blue/MTH\\_105/homework.html](https://holt.blue/MTH_105/homework.html)

Please follow the instructions for completing and submitting homework. When you earn a pass code, you will upload it into Canvas.

Each pass code submitted on time will receive the full 20 points regardless of the score. This is to honor the time you put into the homework. Your homework grade is your pass code average.

Due dates for pass codes are given in course schedule on the last page of this syllabus.

**Online homework pass codes uploaded late will receive half credit.**

After verifying the pass code, I will then update Canvas.  
Please note that:

- 1) Images or screenshots of pass codes are NOT accepted.
- 2) You are advised to keep a file containing all your pass codes in case of any possible mishaps. For example, if a student uploads a pass code for the wrong assignment.
- 3) Pass codes from previous terms are not considered valid and will not be accepted for the present term.

**Mandatory-Topic vs. Elective-Topic Pass Codes:** Although each pass code is worth the same amount, pass codes fall into 2 categories:

- 1) Mandatory-Topic Pass Codes (topics covered in class)
- 2) Elective-Topic Pass Codes (topics for which you will watch a video)

**Mandatory-Topic Pass Codes:** These pass codes correspond to topics we cover in class. Also, these are the pass codes for which you may earn extra credit in class.

**Elective-Topic Pass Codes:** In addition to the Mandatory-Topic pass codes, you will complete 8 pass codes designated as “**Elective-Topic.**” The pass codes you choose to complete are entirely up to you. To prepare for these elective-topic assignments, there are lecture videos which you may find at the following URL:

[https://holt.blue/MTH\\_105/lecture\\_videos.html](https://holt.blue/MTH_105/lecture_videos.html)



The major themes of these topics are:

- 1) Ranked-Choice Voting
- 2) Apportionment, Weighted Voting & Power
- 3) Units of Measure
- 4) Cryptography

**Class Time**

In-Class Lectures: Each mandatory topic we cover will be accompanied by an in-class lecture. I strongly advise taking handwritten notes (which you may use on exams) and writing down questions you might have about the material.

Please see the course schedule on the last page of this syllabus for when each topic is covered.

**Participation**: Your participation in class is expected. There are two components to participation: 1) Group problem presentation and 2) Group Activities

**ECPP**: (Extra-Credit Problem+Presentation): During each class time, you will be randomly assigned to groups and each group will get a problem from the homework question bank. This will give you a chance to work with homework problems in a group setting. Each group will be assigned a problem to solve and present at the board.

To reward your diligence for 1) showing up to class and 2) watching the course videos ahead of time and taking notes, I will award extra credit for extra participation. Each group that solves and presents a problem to the class will receive an extra credit point for participation.

**In-Class Group Activities**: Each class time, in your groups assigned for that day, we will either

- 1) do an activity related to the sections covered in the video lectures, OR
- 2) help one another on the homework due for that day

Each participation session is worth 10 points. Students who are late will be awarded partial points at my discretion; the amount of points will depend on how late the student is. **Points for missed sessions cannot be made up.**



### **Exams**

There will be two exams, a midterm and a final, over the course of the term covering material up to each exam. Every exam will consist of 20 multiple-choice questions drawn randomly from our test question bank which consists of problems similar to those in the online homework.

**Please note that exams cover ONLY the material from the mandatory topics.**

Every exam you take in this class will generated from

[https://holt.blue/MTH\\_105/online\\_exam.html](https://holt.blue/MTH_105/online_exam.html)

and there you may generate as many practice exams as you like.

As you will see from using the above resource, none of the exams will be cumulative. The midterm and final exams are each worth 35% of the course grade.

**Each exam will be an in-class, paper-based generated at the above URL.**

**Calculators & Technology:** For the exam you may use the TI-83/84 Series OR a TI- 30XIIS OR a TI Multiview calculator. If there is another calculator that you would like to use, you need to get permission with me beforehand. You MAY NOT use any online resources during the exam.

**Handwritten Notes:** For the exam you MAY use your handwritten notes. You MAY NOT use any online resources during the exam.

**Optional Extra Credit Exam Review Assignments:** For both exams there are two **Optional Extra Credit Exam Review Assignments**. Students who successfully pass a exam review assignment before its respective exam will receive 1.5X credit on a homework assignment titled "Upload Extra Credit Pass Code: Exam Review/Practice". If you decide not to complete this assignment, IT WILL NOT COUNT AGAINST YOUR GRADE. You will simply see an ungraded assignment in Canvas.

Extra Credit Exam Review pass codes are NOT accepted late under any circumstances, even if you take the exam late. So, please plan accordingly.

To complete this optional assignment go to

[https://holt.blue/MTH\\_105/online\\_exam.html](https://holt.blue/MTH_105/online_exam.html)



	<p>You may also find the above in Canvas. Please follow the instructions and choose the appropriate exam using the drop-down menu.</p> <p>If you successfully complete a practice/review exam with a 70% or better (you have as many attempts as you like), you will receive a pass code for the assignment. You will then copy, paste, and upload this pass code into Canvas. <u>This must be done before the due date given in Canvas. Late exam practice/review pass codes will not be accepted.</u></p> <p><b>Course Grade:</b> Your course grade will be determined by the following items and their associated weights:</p> <p>Participation.....20% Homework (17 <u>mandatory</u> pass codes, 8 pass <u>elective</u> pass codes).....20% Midterm Exam .....30% Final Exam.....30%</p> <p>Letter grade equivalents to the above course grade are: <b>A</b> <math>90 \leq \text{Course Grade} \leq 100</math> <b>B</b> <math>80 \leq \text{Course Grade} &lt; 90</math> <b>C</b> <math>70 \leq \text{Course Grade} &lt; 80</math> <b>D</b> <math>60 \leq \text{Course Grade} &lt; 70</math> <b>F</b> <math>\text{Course Grade} &lt; 60</math></p> <p><b>Please Note:</b></p> <ul style="list-style-type: none"><li>• 1. No graded items will be accepted past the deadline 11:59 pm on the last day of the course listed in myLakerLink.</li><li>• 2. Your final course grade will NOT be rounded up no matter how close it is to the next letter grade. Ample opportunity is provided during the term to earn the grade you want and it is your job to make sure your grade lands where you want it. <b>I will not respond to emails asking me to round grades up.</b></li><li>• Pass codes from previous terms are NOT considered valid and will not be accepted for the present term.</li></ul> <p><u>Students who need reasonable accommodation should contact the instructor or call Disability Services for Students at 541-888-7405.</u></p>
Text(s)	<p><b>Text:</b></p> <p>Contemporary Mathematics, Donna Kirk</p> <p><a href="https://holt.blue/MTH_105/text.pdf">https://holt.blue/MTH_105/text.pdf</a></p>



<b>Required Materials</b>	A TI 30XIIS, TI Multiview, or TI-83/84 Calculator
<b>Term Calendar</b>	Please see the course calendar on the last page of this syllabus.
<b>Prerequisites</b>	MTH 95 or MTH 98 is a prerequisite for this course. If you did not pass MTH 95 or MTH 98 with a "C" or higher, you may be administratively withdrawn from this course within the refund period. This withdrawal could affect your financial aid and/or academic standing. If you are uncertain about whether you have passed MTH 95 or MTH 98 with a "C" or higher, check MyLakerLink or with your advisor within the first week of class to ensure you have met the course prerequisites.
<b>Availability of Tutoring, Learning Lab, Academic Support</b>	In addition to office hours I highly recommend that you visit the tutoring center on the 3rd floor of the Tioga building. There are tutors there waiting to help you! Also, tutoring services are FREEEEEEEEEEEEEEEEEEEEEE!!!!



## Policies and Guidelines

*Components marked with asterisk (\*) are required for every syllabus.*

### **\* Course Hours**

Southwestern's Credit Hour Administrative Policy (APP 8191) stipulates that credit-bearing courses, regardless of delivery method, are scheduled and conducted in compliance with the definition of the credit hour as set forth in Section 600.2 and 600.24 of the Code of Federal Regulations and the NWCCU Policy on Credit Hour. For this reason, students are expected to complete a minimum of two hours of out-of-class student work per credit hour each week for the quarter.

### **\* Children in the Classroom**

Children represent a disruptive element for the classroom. They also increase the risk of accidents occurring in the laboratory. For those reasons, children should not be brought to either the classroom or the laboratory.

### **\*Academic Honesty: Plagiarism And Cheating**

Cheating, plagiarism, and other acts of academic dishonesty are regarded as serious offenses. Instructors have the responsibility to submit, in a written report to the Dean of Students any such incident that cannot be resolved between the instructor and student. The policy of the Board of Education of Southwestern Oregon Community College on Student Rights, Student Code of Conduct, and Student Grievance Procedure outlines penalties ranging from admonition to expulsion from the class or college. In the policy, academic plagiarism is defined as: "The intentional submission for evaluation to a college instructor or administrator of material based, in significant part, on work done by someone other than the submitter without reasonable written indication to the evaluator of the material's true source." Academic cheating is defined as "The intentional submission for evaluation to a college instructor or administrator of material based, in part, on a source or sources forbidden by generally accepted standards or by regulation established by the evaluator and disclosed in a reasonable manner." The complete policy, student rights and responsibilities, penalties, and recourse through the Grievance Procedure can be found in the [Student Handbook](http://www.socc.edu/studentlife/pgs/bm~doc/socc-hb.pdf) (<http://www.socc.edu/studentlife/pgs/bm~doc/socc-hb.pdf>).

### **\*Academic Ethics and Confidentiality**

It is the responsibility of everyone engaged in the learning experience to respect the rights and feelings of their fellow learners. Information gathered in the classroom and from on-line discussions and exercises is to be considered confidential. At the same time, students must recognize that the instructor and the College cannot guarantee the confidentiality of what the student may choose to disclose. Students must use their own discretion when engaging in classroom discussion.

### **\*Classroom Behavior**

Instructors have the responsibility to set and maintain standards of classroom behavior appropriate to the discipline and method of teaching. Students may not engage in any activity which the instructor deems disruptive or counterproductive to the goals of the class. Students are required to keep cell phones, beepers, and pagers off during class lectures, unless there is permission in advance from the instructor. Instructors have the right to remove offending students from class. Repetition of the offense may result in expulsion from the course.

### **\*Student Conduct**

Opt #1: Students must read and be familiar with the Code of Conduct as published in the Student Handbook, policies and procedures as outlined in campus publications, Southwestern Oregon policies.

Opt. #2: Students in this (or any) program of study should be especially aware of the severe consequences of plagiarism. Students that submit work that is not their own will be dealt with quickly and severely. It will be the recommendation of the faculty to remove such students from the College.

Opt. #3: Students that have a concern regarding any inappropriate conduct should bring it to the attention of their instructor, advisor, or Department Chair immediately. Inappropriate conduct situations will be reviewed immediately.

Opt. #4: Students taking this course should be aware of the potential diversity of the artistic perception of the participants - particularly as applicable to violence, artistic statements, and nudity. Please keep your material and remarks professional and appropriate and be sensitive to individuals that have views different than your own.



**\*Americans with Disability Act – Disability Accommodation Statement**

SWOCC recognizes the contribution that a diverse student body brings to the educational experience. If you have a documented disability that may require assistance, inform your instructor and then contact the Disability Services Office for coordination of your academic accommodations. To ensure that your instructor is aware of your request, you are required to set up an appointment to talk with them sometime during the first two weeks of the term. The Disability Services Office is located on the Southwestern campus in Student Support Services, Stensland Hall. Please call the following number for more information (541) 888-7405.

**\*Notice of Non-Discrimination**

Students, their families, employees and potential employees of the Southwestern Oregon Community College District are hereby notified that Southwestern Oregon Community College does not discriminate on the basis of race, color, gender, sexual orientation, marital status, religion, national origin, age, disability status, gender identity, or protected veterans in employment, education, or activities as set forth in compliance with federal and state statutes and regulations. Any persons having inquiries concerning Southwestern's compliance with Title II, Title IV, Title VI, Title VII, Title IX and/or Section 504 or wish to make a complaint may contact the College's Affirmative Action Officer:

Vice President of Administrative Services  
Southwestern Oregon Community College  
1988 Newmark Ave., Tioga Hall, Room 511  
Coos Bay, OR 97420  
(541) 888-7402

Southwestern Oregon Community College offers the following career and technical education programs for all students regardless of race, color, gender, sexual orientation, marital status, religion, national origin, age, disability status, gender identity or protected veteran status, including those with limited English proficiency: Business, Office Technology, Computer Technology, Childhood Education, Criminal Justice, Culinary, Fire Sciences, Health Sciences, and Welding and Fabrication. Persons seeking further information concerning the vocational education offerings and specific pre-requisite criteria should contact:

Ali Mageehon, Vice President of Instruction and Student Services  
Southwestern Oregon Community College  
1988 Newmark Ave., Tioga Hall, Room 506  
Coos Bay, OR 97420  
(541) 888-7417 [ali.mageehon@socc.edu](mailto:ali.mageehon@socc.edu)

**\*Grievances**

For more information on the grievance process visit the Student Handbook.

**Class Cancellations (Faculty Absence)**

Notices of class cancellations at SWOCC are made through an automated system called RAVE. Notices of class cancellations due to faculty absence will be sent to through the following devices: Voicemail to cell phone, text to cell phone, and email to college email account. To receive these important notices, please update your cell phone, telephone and email contact information through myLakerLink, click on the Student Information tab, then Rave User Portlet.

**Cell Phone Use Policy**

Given the disruptive potential posed by cell phones, students are required to keep cell phones off during class lectures. Use of cell phones during laboratory exercises are permissible, but please consider those around you.

**\*Basic Needs Statement**

Our college is dedicated to ensuring every student's academic success and well-being. If you face challenges like food insecurity or housing instability, contact our Benefits Navigator for confidential assistance and community referrals. We aim to create a supportive environment where all students thrive.

541-888-7462 or [benefitsnavigator@socc.edu](mailto:benefitsnavigator@socc.edu)





Day	Topic	Section & Course Events	Due
M 3/31	Sets & Probability	Course Introduction Sets & Set Operations <b>ECPP</b>	Pass Code: Syllabus
W 4/2	Sets & Probability	Probability Basics <b>ECPP</b>	Pass Code: Sets & Set Operations
M 4/7	Sets & Probability	Addition Rules (OR Events) <b>ECPP</b>	Pass Code: Probability Basics
W 4/9	Sets & Probability	Multiplication Rules (AND Events) <b>ECPP</b>	Pass Code: Addition Rules (OR Events)
M 4/14	Logic	Statements & Quantifiers <b>ECPP</b>	Pass Code: Multiplication Rules (AND Events)
W 4/16	Logic	Truth Tables <b>ECPP</b>	Pass Code: Statements and Quantifiers
M 4/21	Logic	Types of Statements <b>ECPP</b>	Pass Code: Truth Tables
W 4/23	Logic	Deciding the Validity of Arguments <b>ECPP</b>	Pass Code: Types of Statements
M 4/28		<b>Midterm Exam Review</b>	Pass Code: Deciding the Validity of Arguments
W 4/30		<b>Midterm Exam: Sets, Probability &amp; Logic</b>	<b>Optional Pass Code: Midterm Review (Due before 12 pm!!!) Not accepted late!</b>
M 5/5	Statistics	Picturing Data with Graphs <b>ECPP</b>	<b>4 Elective-Topic Pass Codes</b>
W 5/7	Statistics	Measures of Center & Variation <b>ECPP</b>	Pass Code: Picturing Data with Graphs
M 5/12	Statistics	Data Collection & Sampling <b>ECPP</b>	Pass Code: Measures of Center & Variation
W 5/14	Statistics	Normally Distributed Data <b>ECPP</b>	Pass Code: Data Collection & Sampling
M 5/19	Finance	Simple Interest <b>ECPP</b>	Pass Code: Normally Distributed Data
W 5/21	Finance	Compound Interest <b>ECPP</b>	Pass Code: Simple Interest
M 5/26		<b>Memorial Day Holiday</b>	Pass Code: Compound Interest
W 5/28	Finance	Mortgages <b>ECPP</b>	Pass Code: Mortgages
M 6/2	Finance	Investing in Stocks & Bonds <b>ECPP</b>	
W 6/4		<b>Final Exam Review</b>	Pass Code: Investing In Stocks & Bonds
M 6/9		<b>Final Exam: Statistics &amp; Finance from 12 pm to 1:50 pm (the usual time)</b>	<b>Optional Pass Code: Final Review (Due before 12 pm!!!) Not accepted late!</b> <b>4 Elective-Topic Pass Codes</b>



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