UVU Culinary Arts Institute
Utah Valley University

CA 1160 - X01: CULINARY MATH Syllabus

**INSTRUCTOR:**  KJ Francom, CCC

**CONTACT**  EMAIL (preferred): kfrancom@uvu.edu

**INFORMATION:** Office Phone: 801-863-6765

I will respond to emails (preferred) between 8:00 pm and 2:00 pm, Monday - Friday.I will respond to weekend messages on Monday morning.

**OFFICE HOURS:** CL 023 Monday 8:00 - 11:00am

**LOCATION/** Online, follow module schedule

**SCHEDULE:**

**TERM:** Fall 2022 August 2 – October 10, 2022

**DESCRIPTION:** This course is designed to be a comprehensive advancement of culinary math skills providing a foundation for math applications utilized throughout the culinary arts curriculum. Focusing on the math skills needed to calculate percentages, ratios, the metric system, conversion factors, yield tests, recipe conversion, and recipe costing as they relate to the foodservice industry.

Students will develop projections and analyze costs in yield tests and recipe pre-costing.

*Pre-Requisite: None*

**TEXTBOOK and** *Culinary Math, Principles and Applications* ISBN: 978-0-8269-4276-0

**REQUIRED** **3rd Edition**, McGreal & Padilla 2021

**MATERIALS:**

**Basic Calculator** for the final **– Not your cell phone!**

**STUDY HELPS Math Lab** LA 201 visit [www.uvu.edu/mathlab](http://www.uvu.edu/mathlab) for hours

**Digital Resource** visit [www.ATPeResources.com/Quicklinks access code 285429](http://www.ATPeResources.com/Quicklinks%20access%20code%20285429)

**Study Groups** you must organize these on your own

**COLLEGE POLICIES:** All **UVU** policies must be adhered to at all times during this course.

All **CAI** policies as outlined in the CAI Student Handbook must be adhered to at all times.

**LEARNING** Students will, with minimum 70% accuracy, complete the following:

**OUTCOMES:**

1. Demonstrate use of basic addition, subtraction, multiplication and division.
2. Perform basic math functions including fractions, decimals, ratios, percentages, and measurements.
3. Convert between various measurements and measurement systems.
4. Perform recipe scaling, costing, and pricing calculations.
5. Apply percentages in culinary specific applications.
6. Define revenues and expenses within a food service operation.
7. Identify marketing techniques to increase sales and profitability of restaurant operations.

**INSTRUCTIONAL** Daily lectures, Classroom interaction, Assignments, Computer Aides

**METHODS:**

**HOMEWORK:** There will be homework assignments due each week on the Canvas learning management system. It is important that you practice the skills necessary to easily compute the mathematical formulas used in food service. A job in the food service industry requires that your math skills are exemplary. Although the math used in the food service industry is not very complex, it does require practice to easily determine the correct formula to use for the right application.

The homework assignments are geared to bring you to a new level of understanding each week. **Homework in CA 1160 will NEVER be accepted late.** *It will be due on Canvas on the dates and times designated, and will not be reopened once the assignment closes. It is your responsibility to know when assignments are due. Homework can always be turned in early.* ***If you have an irregular need, then you are expected to make arrangements beforehand****.*

If you have trouble understanding the formulas used in this class, it is recommended that you seek help from a tutor, your instructor, or a study group.

Your grade will be determined using the standard grading scale.You are allowed to use a calculator for your homework and exams. Bring your calculator with you to every class.

**FINAL EXAM:** There will be a comprehensive final exam given the last day of class. You must pass the final exam with a C- (70%) or better to pass the class. If your final exam score is less than 70%, then the highest grade you can receive is a D+ no matter what your quiz/assignment percentage is. You will have 1 hour to complete the final exam.  **Notes may NOT be used on the final.** You must show your work for each problem on the final exam in order to receive credit for the question and answer.

**PARTICIPATION:** You are expected to post to discussions once a week. You will have one week to complete each module of the class after which it will be closed to you. It will not be reopened for any reason.

**ATTENDANCE:** You are not expected to attend class lectures. Class lectures are intended for you to receive additional instruction to supplement what is taught in your book. Roll will be taken, but there is no grade for attendance.

**EVALUATION:** CA 1160 will be weighted as follows:

10% Assignments

50% Quizzes

40% Final Exam

**ACCOMMODATIONS:** Students needing accommodations due to a disability including temporary and pregnancy accommodations may contact the UVU Accessibility Services at [accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu) or 801-863-8747. Accessibility Services is located on the Orem Campus in LC 312.

(It is important to do this as soon as possible since accommodations are not applied retroactively)

**INSTRUCTOR** What I expect from all students:

**EXPECTATIONS:**

* You will treat everyone in class, including the instructor, with respect.
* You will agree to do the work outlined in the syllabus on time.
* You will acknowledge that previous academic preparation (e.g. writing skills, math skills) will affect your performance in each course.
* You will acknowledge that your perception of effort, by itself, is not enough to justify a distinguished grade.
* You will not plagiarize or otherwise steal work from others.
* You will not make excuses for your failure to do what you did not do.
* You will accept the consequences, both good and bad, of your actions.

**GRADING:** University grading policies & standards apply.

A 95 - 100 % C 74 – 76.99 %

A- 90 - 94.99 % C- 70 - 73.99 %

B+ 87 - 89.99 % D+ 67 - 69.99 %

B 84 - 86.99 % D 64 - 66.99 %

B- 80 - 83.99 % D- 60 – 63.99 %

C+ 77 - 79.99 % E 59.99 % and below

*\*\*C- or above is passing*

**GRADE**  All CAI grading is done in accordance with University Policy.

**DEFINITIONS:**

**A, A- = Outstanding Achievement**The student demonstrates an exceptional mastery of the content. An “A or A-” grade is an exceptional grade indicating distinctly superior performance of which very few students are capable of achieving. The student demonstrates unusually sharp insight regarding the course content and every aspect of performance is of exemplary quality.

**B+, B, B- = Commendable Achievement**

The student demonstrates an above average mastery of the content. A “B+, B or B-” grade is an above average grade indicating achievement of a high order. The student has exceeded the stated requirements. The student demonstrated commendable insight regarding the course content and every aspect of performance is of above average quality.

**C+, C = Acceptable Achievement**

The student demonstrates average aptitude of the content. A “C+ or C” grade is an average grade indicating that a student has performed satisfactorily in all aspects of their work. The student has adequately met the stated requirements. The student demonstrates acceptable insight regarding the content and overall performance is of average quality.

**C- = Marginal Achievement**The student demonstrates a below average mastery of the content. A “C-” grade is a below average grade indicating that a student has not fully met the stated standards of the course. The student demonstrates minimal insight regarding content and the overall performance is of marginal quality.

**Below C- = Failing**

The student demonstrates little to no mastery of the content. An “F” grade is a failing grade indicating that a student has not met the stated standards of the course. The student demonstrates insufficient insight regarding content and the overall performance is not worthy of credit.

**Note: Any course grade with a score below C- must be repeated.**

**COURSE OUTLINE:**

**Course Orientation Weekly Objectives:**

8/22/2022 - Take Canvas Tour to understand how Canvas works

8/28/2022 Update Canvas profile

Read course syllabus

**Homework:**

Syllabus Acceptance Quiz

Canvas Tour badge

Profile update screenshots

**Module 1 Weekly Learning Objectives:**

8/22/2022 - *Chapter 1 – Using Math in Foodservice Operations*

8/28/2022 How math is used in everyday foodservice

Addition and subtraction of whole numbers

Multiplication and division of whole numbers

Rounding

*Chapter 2 – Measuring in the Professional Kitchen*

The role of standardized measure in foodservice

Two systems of measurement used in foodservice

Common units of measure (UOM) for volume & weight in the kitchen

How to change a measurement in one UOM to an equivalent in another UOM

Common kitchen tools to measure volume and weight

Time, Temperature & Distance as used in foodservice

**Homework:**

Chapter 1 Math Exercises

Chapter 2 Math Exercises

**Module 2 Weekly Learning Objectives:**

8/29/2022 - *Chapter 3 – Calculating Measurements*

9/4/2022 Add, subtract, multiply and divide measurements involving whole numbers Convert between improper fractions and mixed numbers

Add, subtract, multiply, and divide fractions

Round, add, subtract, multiply, and divide decimals

Convert between fractions and decimals

Calculate area & volume of rectangles and cylinders

Degrees & Angles

Average

**Homework:**

Chapter 3 Math Exercises

Volume Tree

**Module 3 Weekly Learning Objectives:**

9/5/2022 - *Chapter 4 – Converting Measurements and Scaling Recipes*

9/11/2022 Convert measurements within customary or metric system

Convert measurements between customary and metric system

Convert between weight and volume measurements

Common elements of a standardized recipe

Calculate scaling factor (SF) based on a recipe yield and product availability

Scaling considerations

**Homework:**

Chapter 4 Math Exercises

**Module 4 Weekly Learning Objectives:**

9/12/2022 - *Chapter 5 – Calculating Percentages and Ratios*

9/18/2022 Calculate percentages

Calculate yield percentages

Conduct yield tests

Calculate As-Purchased (AP) quantities

Calculate Edible Portion (EP) quantities

Calculate Bakers Percentages (BP)

Define ratios and their use in the kitchen

**Homework:**

Chapter 5 Math Exercises

**Module 5 Weekly Learning Objectives:**

9/19/2022 - *Chapter 6 – Calculating Costs and Menu Prices*

9/25/2022 Review Calculating Bakers Percentage

Identify AP costs on invoices

Calculate as-purchased unit costs (APUC)

Calculate edible portion unit costs (EPUC)

Calculate as-served costs of menu items (AS)

Calculate food cost percentages of menu items and overall

Calculate menu pricing using food cost percentages pricing method

Calculate menu pricing using contribution margin pricing method

**Homework:**

Chapter 6 Math Exercises

Pricing Form

**Module 6 Weekly Learning Objectives:**

9/26/2022 - *Chapter 7 – Calculating Revenue and Expenses*

10/2/2022 Discuss Guest Checks, discounts, sales tax, gratuity

Point of Sale in foodservice

Expenses; Capital, Cost of Goods Sold & Operational

Explain difference between variable and fixed expenses

**Homework:**

Chapter 7 Math Exercises

**Final Exam Weekly Learning Objectives:**

10/3/2022 - Prepare for and take final exam.

10/7/2022 Practice exams are available to help you prepare.

**Homework:**

Proctorio Practice Quiz (Remotely Proctored)

Final Exam (Remotely Proctored)

SRI

UVU Online Etiquette

In order to maintain a positive online environment for our class, students should follow the guidelines summarized below.

Students are expected to:

* Show respect
* Express differences of opinion in a respectful and rational way
* Maintain an environment of constructive criticism when commenting on the work of other students
* Avoid bringing up irrelevant topics when involved in group discussions or other collaborative activities

Students should Not:

* Show disrespect for the instructor or other students in the class
* Send messages or comments that are threatening, harassing, or offensive
* Use inappropriate or offensive language
* Convey a hostile or confrontational tone
* Use all UPPERCASE in their messages—this is the equivalent of shouting