



CA 1160 – Culinary Math

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

Semester: Spring

Course Prefix: CA

Course Title: Culinary Math *Click here to enter text.*

Year: 2025

Course and Section #: 1160-001

Credits: 1.0

Course Description

Reviews basic math functions. Applies basic math functions to culinary specific uses including unit conversion, recipe scaling, yields, recipe costing, menu costing, food service expenses and costs, and baker's percentages.

Course Attributes

This course has the following attributes:

- General Education Requirements
- Global/Intercultural Graduation Requirements
- Writing Enriched Graduation Requirements
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: James Veylupek

Student Learning 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.
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Course Materials and Texts

- Culinary Math, Principles and Applications; McGreal and Padilla; 3rd Edition
- Calculator

Course Requirements

Course Assignments, Assessments, and Grading Policy

Assignments: Weekly math exercises related to current topics of study; food costing assignment. (10% overall grade)

Quizzes: Assessments administered at the conclusion of each outcome. (50% overall grade)

Final Exam: A comprehensive exam that covers all course topics given on the last day of the course. (40% overall grade)

Final grades are rounded to the nearest tenth and are assigned the corresponding letter grade:

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

Required or Recommended Reading Assignments

All required reading will use chapters from the course text that align with the lectures below.

General Description of the Subject Matter of Each Lecture or Discussion

Chapter 1 – Using Math in Foodservice Operations

- Using math in everyday foodservice
- Adding, subtracting, multiplying, and dividing of whole numbers
- Rounding

Chapter 2 – Measuring in the Professional Kitchen

- Standardized measurements in foodservice using to systems of measurement
- Common units of measure (UOM) for volume and weight; converting between different UOM; converting between different UOM; common tools used for volume and weight measurement
- Time, temperature, and distance as used in foodservice

Chapter 3 – Calculating Measurements

- Calculating measurements using addition, subtraction, multiplication, and division using whole numbers
- Converting between improper fractions and mixed numbers
- Fractions: addition, subtraction, multiplication, and division
- Decimals: rounding, addition, subtraction, multiplication, and division of decimals
- Converting between fractions and decimals
- Calculating area and volume of rectangles and cylinders
- Averages
- Degrees and angles

Chapter 4 – Converting Measurements and Scaling Recipes

- Measurement conversions: within the customary or metric system; between the customary or metric system; between weight and volume measurements
- Common elements of a standardized recipe
- Scaling recipes to different amounts: calculating scaling factor (SF) based on yield or product availability; scaling considerations

Chapter 5 – Calculating Percentages and Ratios

- Calculating percentages: yield percentages; conducting yield tests; baker’s percentages (BP)
- Ratios: definition and usage in kitchen
- Calculation of quantities: as-purchased (AP); edible portion (EP); calculating differences between AP and EP

Chapter 6 – Calculating Costs and Menu Prices

- Review of BP calculations
- Calculating costs associated with restaurant operations: AP invoice cost; AP unit cost; EP unit costs, AS (as served) menu item costs
- Calculating food cost percentages: menu item, overall
- Menu pricing: based on food cost percentage method and contribution margin method

Chapter 7 – Calculating Revenue and Expenses

- Point of sale in foodservice
- Expenses: capital, cost of goods sold, operational, variable versus fixed expenses
- Guest checks, discounts, sales tax, gratuity

Required Course Syllabus Statements

Generative AI

AI programs are not a replacement for your human creativity, originality, and critical thinking. Writing, thinking, and researching must be developed over time in order to develop your own individual voice. At the same time, you should learn how to use AI and in what instances AI can be helpful to you.

The use of generative AI tools (e.g. ChatGPT, Google Bard, etc.) **is permitted** in this course for the following activities: Brainstorming and refining your ideas, finding information on your topic, drafting an outline to organize your thoughts, and checking grammar and style.

The use of generative AI tools is **not permitted** in this course for the following activities: Impersonating you in classroom contexts (such as by using the tool to compose discussion board prompts/responses assigned to you or content that you put into a Teams/Canvas chat), writing a draft of a writing assignment, writing entire sentences, paragraphs or papers to complete class assignments.

You are responsible for the information you submit based on an AI query. Your use of AI tools must be properly documented and cited in order to stay within university policies on academic honesty.

Any student work submitted using AI tools should clearly indicate what work the student’s work is and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, please reach out to me for a conversation before submitting your work.

Using Remote Testing Software

This course does not use remote testing software.

This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers’ immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.
