



Culinary Chemistry



CHEM 1330.060 **Summer I 2023**

Course Description:

This course describes the chemistry and chemical reactions surrounding food and cooking. While it blends fundamental chemistry with the more applied aspects of food chemistry, the understanding of the chemical concepts associated with food and food preparation will be the main focus.

Course Meeting Times:

The semester begins May 30th and ends July 1st. This course meets asynchronously online, but assignments are due on a week-to-week basis unless specified by the instructor.

Instructor Information:

Primary Instructor: Dr. Jordan Beaver, Ph.D.

Email: jbeaver@uttyler.edu

Summer 2023 Office Hours
By Appointment

Student Learning Outcomes:

By the end of this course, you should be able to:

1. Demonstrate critical thinking and reasoning skills by predicting and explaining the chemical components of food and their interactions using the scientific method (CTS, EQS).
2. Explore and understand the reasons behind why certain ingredients and reagents are used in particular foods and culinary reactions (CTS, EQS).
3. Classify the different components of food (e.g. proteins, carbohydrates, fats & oils, gels, colloids,) and the importance of their chemical properties and behavior (EQS).
4. Demonstrate the ability to think critically in the context of a food chemistry project (COM, CTS).

CTS—Critical Thinking Skills, EQS—Empirical and Quantitative Skills , COM—Communications Skills

Required Materials

Textbooks (FREE - Provided in the Course)

Primary Text: *The Science of Cooking* by Joseph Provost, et. al

Secondary Text: *On Food and Cooking* by Harold McGee

Kitchen & Ingredients

Access to a kitchen is required to take this course. You will need an available oven, stove top, and basic kitchen accessories. You will also be required to purchase certain food items from a list provided by the instructor (be on the look out for Budget Options to help with costs). Consider the ingredients part of your textbook fees. If you are ever in a position that you cannot afford specific ingredients or equipment, please contact the instructor **with an adequate explanation and proposed alternative.** And if you need help, just ask!

Technology

Computer access with reliable high-speed internet connection is required. A mobile device, Netbook, or Tablet will likely **not** be sufficient. If you chose to use one of these devices as your primary method for accessing the course page, do not be surprised if you have a lot of trouble. No extension or exceptions will be made for inadequate...

Required Materials (continued)

equipment, so be ware! Video recording capability is also necessary, and basic editing skills are highly recommended.

Video Editing and Submitting Cooking Lab Recordings

Though not covered within the course, some basic competency with video editing will likely be needed for the sanity of both the student and graders within the course. Typically, Cooking Lab videos should be kept to less than 3 minutes long, thus it is recommended that students familiarize themselves with making “quick cut” videos of the cooking procedure. See the video below or do some searching for user-friendly editing software.

iPhone: <https://www.youtube.com/watch?v=rR2Nym2glGI>

VN Editor: <https://www.youtube.com/watch?v=yb7-ab-6MO8>

Issues uploading videos to Canvas

Due to the typical class size of CHEM 1330, the canvas pages can sometimes get overwhelmed with the amount of data that gets uploaded. Students can experience issues attempting to submit a cooking lab (especially if their file size is particularly large or if they are one of the last in the class to upload). In this case, is recommended that the student try compressing the file or uploading the video to the “Comments” section of the assignment. If this does not work, using a third-party site (such as Youtube) and submitting the URL to the assignment is perfectly fine. Due to US regulation, **YOU MAY NOT SUBMIT A URL THAT LINKS TO TIKTOK!** You may still use it as a video editor if you wish, but the instructor cannot access any recording that are directly uploaded to Tiktok (sorry).

Modules

This course uses module-based learning from the Canvas server. There are 12 total modules and 2 exams that need to be completed throughout the course. Each module consists of: readings, lecture videos, check for understanding quizzes, a learning activity, a video lab prompt, and a

module assignment. There is a checklist on the Syllabus page that should be used to confirm completion of all required materials. If you are having technical, connection, or any other issues with Canvas, contact Canvas 24-7 Support (<https://www.utt Tyler.edu/canvas/support/>).

Conduct Towards Others:

As you know, this is a chemistry course. Chemists come from all walks of life (e.g. varying ethnicities, different religious beliefs, gender, etc.) and it is important as scientists to be able to work professionally with others in different environments. Under **no circumstances** will **any** derogatory remarks or actions toward race, gender, religion, and the like be tolerated in this course. Make sure to completely review the Netiquette required for the course (in Canvas).

Course Grade:

Quizzes / Learning Activities =20%

Cooking Labs 20%

Module Assessments 20%

Exams (2) 30%

Group Project 10%

Grades are assigned based on the percent of total points

A = 100 – 90 %

B = 89 – 80 %

C = 79 – 70 %

D = 69 – 60 %

F = < 60%

Instructor reserves the right to adjust to grading scale as necessary for the good of the students. **Last day to withdraw from the course is June 21st.**

Course Grade (continued):

Quizzes / Learning Activities

Quizzes will assess your understanding of the lecture material and/or readings. Most of the quizzes will be 5-10 questions and can be retaken until content mastery. Completion of the Syllabus Quiz will be your first quiz grade. **Learning activities** will reinforce module content and may include: crossword puzzles, sorting topics, matching, etc. These can also be redone until content mastery.

Cooking Lab:

Most weeks, students will be assigned an at-home cooking project, where they will post a video of the food you created. Each module lists specific requirements for that particular module (typically the content to be discussed by the student and a supporting video).

Module Assessments:

Assessments at the end of each module are used to evaluate learning and advanced analysis/application to the module content. You should complete all readings, videos, quizzes, and learning activities before completing the module assessment because *the assessment can only be taken once*.

Exams:

Exams are **open-book/open-note** and will test information covered during lectures, assigned readings, quizzes, learning activities, at-home cooking projects, and assignments. There will be 2 exams in this course. The exams will be available over a window of time but must be completed in one sitting over one hour. You cannot pause the exam to re-take it at a later time.

Make-up Policy

Due to the self-paced nature of the course, it is the responsibility of the student to understand due dates and assignment criteria. If extenuating circumstances arise that prevent completion of work by an assigned due date, please inform your instructor asap. *There is no guarantee that late-work will be accepted (unless permitted by [University policy](#)), but exceptions may be made if the student's request is made in a timely fashion (asking to make up Week 1 work in Week 14 will likely not be permitted).*

Student Academic Conduct:

In this course, students are encouraged to study and to prepare for assignments with one another. ***However, during quizzes/escape rooms, assessments, and exams, students are to work alone. Cheating will not be tolerated.*** The University regulations are very explicit about academic misconduct, and these regulations will be fully enforced.

During examinations, a code of honor will apply under which students are to work alone and neither give help to others nor receive help from any unpermitted sources (such as Chegg, Coursehero, Slader, etc). Students also are expected to help enforce this code. The minimum penalty for cheating will be a zero on the exam or assignment in question. **Maximum penalties, up to university expulsion, will be pursued in extreme or repeat cases.** Students are encouraged to obtain a copy of A Student Guide to Conduct and Discipline at UT Tyler, available in the Office of Student Affairs.

Unless specified by the instructor, all assignments are due at 11:59 pm Central Time.

The final project is due at 5pm on 7/1 (subject to change)

University Policies

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

<http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at

<http://www.uttyler.edu/about/campus-carry/index.php>

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, questlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.

- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a “W” grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement

- It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation

- Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

COVID and similar illness

- *It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure ([CDC quarantine/isolation guidelines](#)). Please work with your faculty members to maintain coursework and please consult [existing campus resources](#) for support.*

Lastly...

- Your instructor is, by all accounts, a reasonable human-being. If you have any concerns, questions, or issues throughout the semester, please don't suffer in silence. Open-communication regarding any personal or academic hardships is encouraged, but leaving problems until the last-minute of an assignment due date is not preferable.
- If you find that you have been sending message-after-message or email-after-email to the instructor with no response, this likely means 1 of 2 things...
 - 1) The question you have asked has already be answered within the syllabus or lecture, and the instructor does not feel like repeating themselves
 - 2) You have the wrong account address

Direct all inquiries to jbeaver@uttyler.edu (no "patriots" in the address)