

MRTS 1225 - Thanatochemistry - Online

Course Syllabus: Fall 2025

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

Instructor: Ben Schmidt

Email: bschmidt@ntcc.edu

Teams: bschmidt@ntcc.edu

Office phone: 903 434 8337



| | Monday | Tuesday | Wednesday | Thursday | Friday | Online |
|--------------|----------------|---|---|----------------|----------------|---|
| Office Hours | By Appointment | 10:00 AM — 3:00 PM (CST) Virtual | 10:00 AM — 3:00 PM (CST) Virtual | By Appointment | By Appointment | *Link to my virtual office can be found in the Introduction to Your Course module |

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: A survey of the basic principles of chemistry as they relate to funeral service. The chemical principles and precautions involved in sanitation, disinfection, public health, and embalming practice will be stressed. The government regulation of chemicals currently used in funeral service is reviewed.

2 credit hours Two hours of lecture and one hour of lab each week.

Prerequisite(s): None

Student Learning Outcomes:

Upon the completion of this course, the student shall be able to demonstrate the following competencies with a minimum grade of 80%:

- Summarize general chemistry as a basis for studying embalming chemistry;
- Identify the potentially harmful chemicals used in the preparation room and their regulations;
- Compare representative chemicals in embalming fluids (arterial, cavity and accessory) and give their respective functions;
- Evaluate the characteristic processes of decomposition;
- Identify the characteristic features of solutions, suspensions, emulsions, and the processes of

diffusions;

- Dissect the essential characteristics of carbohydrates, lipids, and protein in the area of basic biochemistry;

Relate organic chemistry to their functions and the use of chemicals in the embalming process.

Evaluation/Grading Policy: There will be five exams, including the final.

Exams:

Exam #1 @ 100 points

Exam #2 @ 100 points

Exam #3 @ 100 points

Exam #4 @ 100 points

Final Exam @ 200 points

Total Exam Points = 600

Assignments:

Projects: 1 @ 100 points = 100 points

Glossary Term Assignment: 1 @ 75 points = 75 points

Discussion Boards: 4 @ 25 points = 100 points

Quizzes: 6 @ 25 points = 150 points

Assignments: 5 @ 25 points = 125 points

Total Assignment Points = 500 points

Total Course Points = 1,150

Percent

A 92 - 100

B 85 - 91

C 80 - 84

D 75 - 79

F 74 & below

Points

A 1006-1100

B 930-1005

C 875-929

D 820-874

F < 719

*A grade of C or better constitutes a passing grade in the Funeral Service Education program. **Final Exam grades must be 75% or higher to pass the class, regardless of the weighted calculation determined. If a student has a weighted grade of 80% or higher and does not receive a final exam grade above 75%, the student will receive an "F" in the class.**

Required Instructional Materials:

Turning Art Into Science: Applying Chemistry to Funeral Service 2nd Edition

Publisher: Tuesday Evening Publications

ISBN Number: 978-0-9988131-4-1

Optional Instructional Materials: *The Art of Embalming: History, Theory and Practice.*

Appropriate readings will be supplied in Blackboard and through independent research.

Library Resources:

Need library resources but don't know where to start? Ask a librarian! Research help is available in person at the Charlie and Helen Hampton Library Reference Desk, by phone at 903-434-8151, or by emailing the Director of Library Services, Ron Bowden at rbowden@ntcc.edu. The library's website, www.ntcc.edu/library, offers access to over 80 databases (including an eBook collection and a streaming video collection), a citation style guide, tutorials, and a link to their online catalog. The Funeral Service Education's library guide can be accessed by going to <https://libguides.ntcc.edu/c.php?g=634483>.

Minimum Technology Requirements:

- Regular (daily) access to high speed internet via computer access
- Respondus Web Monitor (\$15), you will register for this in the "Start Course Here" folder
- Wired Webcam with microphone (for monitored test taking and recording projects)
- Word processing software (Word) and presentation software (Power Point)
- Document scanning capability
- Windows Laptop, PC, or MacBook are acceptable. Chromebooks, Tablets, or iPads are not compatible with the learning management system and will not allow full utilization of resources in the course.

Required Computer Literacy Skills:

Students are expected to have reliable access to a computer and be proficient in the following technology skills:

- Using Microsoft Word, Excel, and PowerPoint
- Using Adobe software (Reader, Acrobat, or other commonly required programs)
- Attaching and submitting documents in standard file formats
- Accessing and utilizing online programs, including Blackboard and textbook support websites
- Navigating the internet and performing database searches for academic articles

When available, automated classroom recording technology may be used to record synchronous (live/virtual) class activities. These recordings are intended solely to supplement the course/program in which they occur and will not be distributed otherwise. Students with concerns regarding the recording of synchronous activities should contact the Program Director prior to the scheduled virtual session.

Course Structure and Overview:

This is a **sixteen-week online course** delivered through the Blackboard Ultra Learning Management System. Students are required to access and submit all graded activities through the designated links in Blackboard.

A typical class will include participation in discussions related to funeral service topics and procedures being studied. Students are expected to:

- Check email and Blackboard frequently for announcements and updates
- Complete online work, discussion forums, projects, and exams as assigned
- Stay current with course materials and deadlines (this is **not** a self-paced course)
- Watch instructional videos and read assigned course textbook(s)
- Submit all assignments in Blackboard by the posted due dates

Active participation and consistent engagement with course content are essential for success.

SCANS Skills:

- Basic Skills: reading, writing, arithmetic and mathematical operations, listening, speaking. Thinking Skills: creative thinking, decision-making, problem-solving, visualization, knowing how to learn, and reasoning.
- Personal Qualities: responsibility, self-esteem, sociability, self-management, integrity, and honesty.
- Resources: Time, money, materials and facilities, human resources.

- Information: acquires, evaluates, organizes, maintains, interprets, and uses computers.
- Interpersonal: participates in teams, teaches others, serves clients, exercises leadership, negotiates, and works with diversity.
- Systems: understands systems, monitors and corrects performance, improves or designs systems. Technology: works with a variety of technologies.
- Didactic: Lectures, PowerPoint Presentations, Discussions, Case Studies, Videos/DVDs, Worksheets, Presentations, Written Assignments, Computer-based Assignments, Tutorials, and Assessments.

Communications:

NTCC student and faculty email serve as the official forms of communication for this course. Blackboard Ultra and Microsoft Teams may also be used to communicate with your instructor(s). **All written correspondence must come from your NTCC student email account.**

- **Response Time:** Student emails and phone calls will be answered within 48 hours. Messages sent after 12:00 p.m. (CST) on Friday, or over the weekend, may not be answered until Monday. Please plan ahead and submit any questions about tests or assignments well before the due date, as instructors are not available 24/7.
- **Email Use:** Emails must be sent from your NTCC student account; messages from personal accounts will not receive a response.
- **Assignment Submission:** Assignments must be submitted through Blackboard. Work submitted via email will not be accepted.
- **Class Communication Spaces:**
 - **Discussion boards, Blackboard Collaborate, and virtual sessions** are intended for open questions and class conversation.
 - **Private email** should be used only for matters you do not wish to share publicly.
 - **Group email** is visible to all recipients. Please use it appropriately when posting information, ideas, opinions, or questions intended for the class.

Students are encouraged to check in frequently and actively participate in both group and individual communications.

To help you develop your professional communication skills, I am instituting a (somewhat) formal email etiquette policy. While in the past, I have had a certain amount of patience for email messages that are written in an informal style—that is, without much attention to structure, grammar, spelling, and style—I am quite concerned that your future employer(s) and other professional colleagues will be less tolerant. They may think that if you are that inattentive in your writing, you might be just as careless when interacting with families. (For example, please read [this article](#))

Therefore, when you send me an email, please make every attempt to adhere to the following recommended guidelines:

- Use a properly descriptive subject line that consists of the course number ("MRTS 1330") followed by a very brief phrase that summarizes the subject of your message, such as "Homework 1, Problem 2" or "Appointment request." Please refrain from using short, nonspecific subject lines that have little to do with the actual message (like "hi," "class," "Comp Bio," "python," "question," "help," or just leaving the subject line blank.)
- Start the body of your email with a proper greeting, such as "Hello, Mrs. G," or something similar. (As a side benefit, this prevents you from accidentally addressing me by my first name)
- Please make sure you know the difference between they're, their, and there. Similarly, make sure you know when to use it's versus its, your versus you're, and to, two, and too. (There are people who write entire books to convey the wrath and fury they feel when they see examples of such abominations of punctuation and spelling.)
- Please capitalize the first letter in each sentence, not the entire sentence.

To encourage you to get in the habit of better email etiquette, my plan is as follows: If I receive an email message from you that does not make a sincere attempt to follow the recommendations outlined above, I may respond with a "canned" (pre-written) message that will politely ask you to rewrite your email and send again. It does not have to be perfect (even I screw up sometimes), but assuming you made a decent attempt to do the right thing, then I will be much more likely to provide an actual, personal, and timely response.

Microsoft Teams communications should follow the email etiquette policy outlined above. All communication should be respectful and professional.

Institutional/Course Policy:

Attendance: Attendance is crucial due to the nature of this course. Success in this course is dependent on your active participation and engagement throughout the course. As such, students must complete all assignments by the due date and actively participate in class discussions.

Since this is an online course, attendance is counted through exams, assignments, discussion boards, and quizzes. Make sure to log in at least three times a week to check for new materials and announcements.

Late Work: Students will have five days to submit late work; however, 10% of the total possible points will be deducted for each day the assignment is late; on the fifth day, the paper will be docked 50% of the grade, following the 10% per day policy. After the fifth day, late work will not be accepted in any Funeral Service course unless discussed with the instructor of record prior to submission.

Additionally, **late work is not accepted beyond the 14th week of class.**

Grading: It is the goal of the funeral service faculty to have all grades and feedback returned to students within one week of the assignment's due date. Occasionally, certain assignments (i.e., projects and essays) may take longer to grade and return. Your instructor will inform you when to expect a delay in returned grades. The CURRENT AVERAGE posted on the Blackboard course site is a calculated grade that represents your current course grade average based on the work you have turned in. It will not calculate correctly if you have missed assignments that have not been filled in with a zero.

****** Students enrolled in Funeral Service courses, including external learning experiences (Internships), must comply with the program dress code. A copy of this dress code can be found in the documents section in your Student Portfolio. It is suggested (and in some cases required) by the Funeral Service program that students purchase personal protective equipment for courses in which exposure to biohazards exists. Please refer to the Funeral Service Student Handbook for specific policies.

For students in this course who may have a criminal background, please be advised that the background could keep you from being licensed by the state in which you plan to practice. Please speak with the Program Director if you have a question about your background and licensure. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

Statement Regarding the Use of Artificial Intelligence (AI) Technology:

Absent a clear statement from a course instructor, use of or consultation with generative AI shall be treated analogously to assistance from another person (collusion). Generative AI is a subset of AI that utilizes machine learning models to create new, original content, such as images, text, or music, based on patterns and structures learned from existing data (Cornell, Center for Teaching Innovation). Unauthorized use of generative AI tools to complete an assignment or exam is not permitted. Students should acknowledge the use of generative AI and default to disclosing such assistance when in doubt. Individual course instructors may set their own policies regulating the use of generative AI tools in their courses, including allowing or disallowing some or all uses of such tools. Students who are unsure of policies regarding generative AI tools are encouraged to ask their instructors for clarification. **(Adapted from the Stanford University Office of Community Standards- accessed August 31, 2023)**

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high

school level. Students to whom the rights have transferred are considered “eligible students.” In essence, a parent has no legal right to obtain information concerning the child’s college records without the written consent of the student. In compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

| Class Week | Month | Dates | Readings* | Topics/Notes | Assignments Due |
|------------|---------|-------|---|--|---|
| 1 | Aug/Sep | 26-1 | <i>TAIS</i> Ch 1 | Course Introduction Introduction to General Chemistry | Discussion Board #1 (25 points) Respondus Syllabus Quiz #1 (25 points) |
| 2 | Sep | 2-8 | <i>TAIS</i> Ch 2-4 | Study of Matter Atoms & Compounds Molecules & Reactions | Assignment #1 (25 points) |
| 3 | Sep | 9-15 | <i>TAIS</i> Ch 5-6 | Water & Solutions pH Shift | Discussion #2 (25 Points) Quiz #2 (25 points) |
| 4 | Sep | 16-22 | <i>Review</i> <i>TAIS</i> Ch 1-6 | Exam Unit I Virtual Class #1 Sep 16 @ 7pm | Exam I (100 points) |
| 5 | Sep | 23-29 | <i>TAIS</i> Ch 7-9 | Funeral Service Chemicals, Antiseptics, Humectants, and Cauterants Preservatives and Disinfectants | Assignment #2 (25 points) |
| 6 | Sep/Oct | 30-6 | <i>TAIS</i> Ch 10-12 | Anticoagulants, Water Treatments, Fragrances, Decomposition Products | Quiz #3 (25 points) Discussion Board #3 (25 Points) |
| 7 | Oct | 7-13 | <i>Review</i> <i>TAIS</i> Ch 7-12 | Exam Unit II | Exam II (100 points) Project Selection |
| 8 | Oct | 14-20 | <i>TAIS</i> Ch 13-14 | Introduction and Building Blocks of Life | Assignment #3 (25 points) Project Outline (10 Points) |

| | | | | | |
|---|-------------|-------|--|--|--|
| 9 | Oct | 21-27 | <i>TAIS</i> Ch 15-16 | Engines and Fats of Life | Assignment #4 (25 points) |
| 10 | Oct/Nov | 28-3 | <i>TAIS</i> Ch 17-18 | Structures and Energies of Life | Project Due (90 points) Quiz #4 (25 points) |
| 11 | Nov | 4-10 | <i>Review</i> <i>TAIS</i> Ch 13-18 | Exam Unit III | Exam III (100 points) |
| 12 | Nov | 11-17 | <i>TAIS</i> Ch 19-20 | Brothers Mortis PPE Virtual Class #2 Nov11 @ 7 PM | Assignment #5 (25 points) Glossary Assignment (75 points) |
| 13 | Nov | 18-24 | <i>TAIS</i> Ch 21-22 | Other Federal Laws | Quiz #5 (25 points) |
| Last day to Withdraw with a “W” November 18 th | | | | | |
| 14 | Nov/ Dec | 25-1 | <i>TAIS</i> Ch 23-24 | Life After Death Building a Methylene Bridge | Quiz #6 (25 points) |
| Thanksgiving Break Nov 26-28 | | | | | |
| 15 | Dec | 2-8 | <i>Review</i> <i>TAIS</i> Ch 19-24 & Glossary Terms | Exam Unit IV | Discussion Board #2 (25 points) Exam IV (100 points) |
| 16 | Dec | 9-11 | | FINAL EXAM- Comprehensive | Final Exam (200 points) |
| Fall Graduation ~ December 12, 2025 | | | | | |

Textbook Key:

TAIS= *Turning Art into Science: Applying Chemistry To Funeral Service*