

INTRODUCTORY PACKET: WCSU EVERYDAY CHEMISTRY: SPRING 2026

Instructor: Tom Di Gaetano: digaetanot@wcsu.edu

Website: www.scientiaestubique.com

Office Hours: T/F 1:45 pm or by appointment

Class Lecture: T/F in SB 124 at 12:30 – 1:45 pm

Lab: SB 336: W 9:30-11:20 & 2:00-3:50 pm

ATTENDANCE

Regular attendance for the lectures is an expectation. However, everyone knows that life happens, and unavoidable absences may occur. **It is all about good faith efforts.** You are responsible for missed work due to your absence(s). All work that is assigned / due, in lecture must be completed by the due date for a score greater than zero, regardless of your physical attendance, unless other arrangements have been made *in advance*.

Lecture: You are urged to keep excellent notes. Guided note packets are provided as hardcopies and online. You are welcome to use them, **and you are expected to take ancillary notes as the lecture evolves.** It is your responsibility to obtain any missed notes, by interacting with other students, and/or by going to my website: www.scientiaestubique.com to download and complete the formal lecture notes.

- **I maintain a blog** regarding the major learning from the lecture. It is an expectation that you read each blog entry. It is a standing assignment for the semester. You don't have a textbook to read, but you have a blog to read.
- I do not use Blackboard. If you wish to know anything regarding your grade, drop me an email, and I will have all that information for you by the next class, or I can provide that information to you via email.
- **My website works best with a computer** as all the notes are in MS Word. Formatting gets a bit weird on phones or iPads / tablets. Once you have a copy of the notes from class, I can then go over those notes with you via an online meeting or at an in-person meeting.

Evaluations / Assignments / Late Work: The evaluations are based upon lecture notes, class discussions, lab work, videos and assignments.

- Generally, there are 3 scheduled "quests."
- These quests will be in the form of take-home exams. You should be prepared for short answer responses & essay questions.
- Multiple choice responses must be in pen, and the responses to short-answer essays must be typed.

The **policy for late submission** of assignments, assigned work, papers, and other related tasks, is as follows:

- As a rule, I do NOT accept late work. Late work earns zero points. **But there is a failsafe, for every student.**
- On those rare occasions you think you cannot meet a due date, you should contact me well before the deadline to arrange for an alternative date. **This is all about taking responsibility, proactive behavior and working as a team member.** If you write me a day or more in advance of the deadline with something like: ***"Tom, I do not think I can have "x assignment" in by the due date. Can we discuss an alternative date for me to turn this in?"***
- I will probably agree. I will contact you and we can work out a new date. If you meet the new deadline, **the work will NOT be considered late** as you and I have agreed to a new timeline, and the work can earn full credit. You can almost design your own schedule, were this option within reason and not abused!

- This idea of an alternate timeline can work if I have not returned graded work, or as long as the new timeline falls within the normal academic semester. This means you cannot get a vacation period (unless it is an unusual issue) or time at the end of the semester to complete work. Note: I cannot give **“incomplete” as a grade at midterm or as a final grade.**
- When you have simply **forgotten an assignment** on the day it is due, and it is sitting at home or on a thumb drive you forgot to bring with you, I have a solution too! Work not handed in at the time it is due should be emailed to me within 1 hour (or so) after a class / lab period ending and it will be considered for **full credit**. Then, **you must turn in a printed copy of the emailed assignment the next day we meet**. In other words, the **email of the work stops the clock!** It tells me the work is done, but life issues have conspired to make things difficult. I understand this – and it has happened to me more times than I care to recall.
 - So, **if you have forgotten an assignment** – email me a digital copy (**an attached MS Word document – not a Google doc, and nothing “shared”**) within an hour or so of class / lab ending and then give me a hard copy the next time we meet. If you forget the hard copy at our next meeting, the score of the work will be a zero.
 - **Note: I do not grade digital work. I only grade printed copies of work. I know many of your other professors grade digital work – but I do not. Simply put, I do not grade accurately online. I end up skimming and missing important points. Please be sure to print out all of your work & hand it into me. Got it?**

Laboratory: The Everyday Chemistry laboratory is SB 336. I am not your lab instructor. Your lab instructor will inform you of the lab expectations. However, I want you to understand from me, right now, that lab is especially important. It is the Department’s long-standing policy that **regardless of the lecture grade**, no student may pass the course, if they are not passing the laboratory portion. When you are failing lab, a grade of “F” will be assigned, regardless of your lecture grade. **Take Home Message:** Get to the lab and hand in an acceptable lab report on time, every time.

The bottom line: Your attendance is expected, but more than that, **your attendance is valued**. The course is designed to help arm you with certain artifacts and habits of mind, necessary to engage in the intelligent and informed dialogue of an educated citizen, regarding biochemical / environmental / chemical issues.

GRADES

Gradings is an expected, appropriate, yet sometimes imperfect activity. Do not hesitate to ask questions about how your grade is calculated or how a grade was assessed. Course grades work on a total points basis.

$$\text{Your Grade} = \frac{\text{earned points}}{\text{total possible points}} \times 100$$

Your grade is a combination of points earned via lab reports, evaluations, all credit-bearing exercises used during or between the lecture periods, papers, and participation. You should expect graded evaluations, and you are expected to write about chemical issues, using a short answer, and a term paper format. Evaluations will be announced in advance. There are no "pop quizzes" **in lecture** (PHEW!). When you miss the lecture and work is assigned, you can find it at my website, and you can complete that work. You are encouraged to contact me as well – just so we can ensure that you are not being unfairly hampered.

- Lab reports are graded. Your laboratory grade will count toward 250 points for your overall course grade, which agrees in principle with the guidelines of the Chemistry Department.
- Laboratory work as well as pre-lab lectures / readings / YouTube videos are testable material. Be aware of this!

This is a writing-intensive course, so be ready. Be aware as well that **I am here to help you, and I am happy to help you.** Just ask. I will help you write just about any assignment – including the lab reports. **The course requires a written final term paper**, in lieu of a final exam. The final term paper is worth 150 points. For organizational help, try **Goblin.tools** or go to my website. At the bottom of the first tab (Notes), you will find a number of helpful documents and ideas. Try the video tab as well.

General Summary of Points

2 to 3 "Quests"	at approx. 40 to 80 points each
10 lab reports (maximum)	at 250 pts.
1 six-page term paper	at 150 points
1 presentation using questions	at 50 points
Participation in 3 presentations	at 50 points maximum

TBA: Various assignments, readings, class work & participation will account for any remaining points. **No grades will be curved or scaled** as a rule

Letter Grade Ranges

Letter grades will be assigned on the following percentage basis:

A = 94↑	B+ 86-89	C+ 76-79	D+ 65-69	F = 50 or lower
A- 90-93	B 83-85	C <u>73-75</u>	D 60-64	
	B- 80-82	C- 70-72	D- 51-59	

For students requiring learning accommodations Access Ability Services has asked us to urge you to visit the office to request those accommodations. They will share with me how I can meet your learning requirements. You should do this as soon as possible if you have not yet done so. For this course, **please note that I have built in extended time**, for all lecture assignments, but we will work with your accommodations – Do not worry at any level. When challenges arise, we can work things out given notice and conversation. *We can make this a highly successful learning experience by working as a team.* I believe that fair treatment does not necessarily mean equal treatment thus, I strive to be an advocate for all my students – those meeting the deadlines and those in need of consideration.

Written Submissions

Written submissions are expected to be accurate, concise, **cited**, logical, *and* handed in on time. (Timeliness is professional and expected.) **Again, this is a writing intensive course, and I can help you!**

I also know schedule jams arise. If you fear work will be late, you should contact me to create an action plan, *prior* to the due date. Your contact must be well in advance of the due date or class time. There may be a grade penalty with a few exceptions – but it is better than a zero.

Except for exams, your written submissions (e.g., your term paper & all other assignments) **must include** appropriate citations and reasonably correct grammar. For lecture, you may use any citation format of your choice so long as citations are embedded into the document per fact and included in a works cited section. **A lack of citations implies plagiarism and will be treated as plagiarism.** Work without appropriate citations will earn a score of zero points. Intractable plagiarism will be reported. **Paraphrased sources must be cited.** When you use whole pieces of a website or text (40 words or more), you should indent the passage and cite the work. **It is not unusual for an assignment to have a dozen or more citations. Do not worry about this.** Your original work is how you construct or weave a response as well as in the selection of sources. **No one expects you to know** the GRAS system, or the work of Charles Goodyear, off the top of your head. You need to look these things up and thus, you need to cite your sources. **It is rather simple.**

RULE: If you look it up, you must cite the source right after you use it!

It is simple, and it is expected!

Copying someone else's work or using AI will earn a score of zero. You are a university student. It is expected you know, as well as follow the rules. You will be held accountable. AI is valuable – but you should not allow yourself to use it in lieu of writing.

With respect to citation, you can use APA, but really, my goal is to be able to review the original website or work you cited. Thus, when using internet sources, it is acceptable in written work for lecture to cite a passage, using a shortened URL address embedded appropriately and expanded in a works cited section, so that I can look up the reference. On the following pages of this packet, there are two illustrations of citation which I feel to be acceptable for our work. **The full and complete URL (universal resource locator) references used should appear in a works cited section for all of your work** when you cite with an abbreviated format. Any source found on your works cited page must be used within the body of your written work. You may include a bibliography should you have other pieces which informed your work but were not quoted or paraphrased.

Notice that in the following examples, four references have been used, and appear in the works cited. Notice as well, that in one short passage regarding the plant, Kanna, seven citations (using those four sources) appear. This is appropriate, expected and valued! Finally, there is no direct quotation in the following passages, but **the passages are a re-wording of readings, thus, each idea/fact is cited. Why is each cited? None of the ideas/facts are original, nor considered to be common knowledge. I had to look up this information. Thus, each requires a citation.** Examples are on the following page.

A GUIDE REGARDING EMBEDDED CITATION(S):

Example 1:

Additionally, Kanna may be classified as a monoamine releasing agent^{1,2}. From this classification it may be inferred that Kanna encourages the release of serotonin (C₁₀H₁₂N₂O)⁴. Hence, Kanna may do double duty in that it can inhibit the re-uptake of serotonin, but it may also encourage the actual release of that neurotransmitter.^{2,3} Kanna may also cause the release of other monoamines, some which are classified as amphetamines, thus affecting mood further.³ However, serious negative effects have not been studied. It is recommended that nursing mothers and pregnant women avoid the use of Kanna.¹

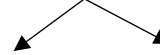
These complete URL addresses should be found on a separate works cited page:

1. <https://examine.com/supplements/sceletium-tortuosum/>
2. <https://www.drugs.com/npp/sceletium-tortuosum.html>
3. https://en.wikipedia.org/wiki/Monoamine_releasing_agent
4. <https://en.wikipedia.org/wiki/Serotonin>

OR you may use a citation system using an embedded but shortened URL/name of text etc... **The full URL should appear in a works cited section, to facilitate review by me.**

Example 2:

Notice the use of 2 embedded, and shortened urls



Additionally, Kanna may be classified as a monoamine releasing agent. (examine.com/supplements, [drugs.com/npp/](https://www.drugs.com/npp/)) From this classification it may be inferred that Kanna encourages the release of serotonin (C₁₀H₁₂N₂O) ([wiki/Serotonin](https://en.wikipedia.org/wiki/Serotonin)). Hence, Kanna may do double duty in that it can inhibit the re-uptake of serotonin, but Kanna may also encourage the actual release of that neurotransmitter. ([wiki/Monoamine](https://en.wikipedia.org/wiki/Monoamine)), [drugs.com/npp/](https://www.drugs.com/npp/) Kanna may also cause the release of other monoamines, some which are classified as amphetamines thus affecting mood further. ([wiki/Monoamine](https://en.wikipedia.org/wiki/Monoamine)). However, serious negative effects have not been studied. It is recommended that nursing mothers and pregnant women avoid the use of Kanna. (examine.com/supplements)

These URL addresses should be included on a works cited page as complete URLs, so that they may be matched and researched.

1. <https://examine.com/supplements/sceletium-tortuosum/>
2. <https://www.drugs.com/npp/sceletium-tortuosum.html>
3. https://en.wikipedia.org/wiki/Monoamine_releasing_agent
4. <https://en.wikipedia.org/wiki/Serotonin>

Nota Bene: Internet sites are a bit tricky, and I urge you to use only authoritative sites. When using a .edu site, be sure you are not quoting a student's paper! With respect, a student paper is not considered to be authoritative. Check the references in the works cited section of the student paper, were it just too tempting for you to pass up – or bring me a copy of what you wish to use and ask me for help.

Be careful using most “.com” sites, and avoid using About.com., especially. (There have been so many errors associated with About.com, it is better to look elsewhere.)

As you can see from the prior examples, I used drugs.com and examine.com as exceptions to the rule regarding .com sites because these two sites provide citations for their work. I value such provision and use that fact to help me determine if the website is appropriate to use. I also consider howstuffworks.com & britannica.com as appropriate sites.

Note that I used Wikipedia as a source (primarily for definition and formula.). However, the use of Wikipedia.com. should be accompanied by at least one other confirming citation. Wikipedia is good, but it still has some issues and thus it should not be your sole reference.

Not surprisingly, there are a lot of exceptions - be judicious. For instance, were you researching the drug Crestor[®], I believe it would be appropriate to use the manufacturer AstraZeneca's website. However, it should never be used as a source for definitive statistics. Such statistics should be verified by an unbiased source from outside of AstraZeneca. The **big idea here** is to use internet sites judiciously, and in the manner of scholarship. **If you have a question** regarding the appropriateness of an internet site, **please contact me**. We can talk about it. Your website selection is an integral part of your work. I will happily help you with some of your research. I can work to point you in the right direction.

Okay - we have covered citations and source selection. But let's talk about what your professor wants out of your writing. Ready?

Expanding upon the work...Expectations of written work

The preceding examples did not appropriately expand on the work. The purpose of those examples was to illustrate embedded citation. The following shows what you need to do on your final paper and free responses.

According to the playwright, George Bernard Shaw: ***“The single biggest problem with communication is the illusion that it has taken place.”***

As an educator, I can agree. Scan the following from the online source *Eating Well* in their published article:

The #1 Ingredient to Add to Tea to Boost Antioxidants, According to Experts

By Elizabeth Shaw, M.S., RDN, CPT Reviewed by Dietitian Emily Lachtrupp, M.S., RD 8/13/2024

From tea’s anti-inflammatory properties to its role in promoting digestion, gut health and cardiometabolic health, tea has a plethora of good-for-you properties thanks to the antioxidants in the brew.¹ Antioxidants are compounds that help reduce oxidation and inflammation in the body by scavenging free radicals that can build up over time and promote disease.

Note that the first line is cited. That’s good. Note as well, that given this is an online article, terms such as: **antioxidants, oxidation, inflammation, and free radicals** could be hyperlinked to provide greater depth of understanding to the reader. However, in truth, only the term *antioxidant* is hyperlinked.

This raises two issues for the reader:

- 1) The scientific understanding of the other terms is **indeterminate**. Has communication occurred effectively? Do you know what the author is telling you? This article is for the general population. Do you know what all the terms mean?
- 2) My belief is that given the lack of insight into the vocabulary choices, the paragraph **neither informs nor illuminates** the issues for the reader. The article veers wildly becoming a word salad. *I mean, really, isn’t this one reason why many people hate reading scientific literature?*
- 3) Written work like the above example reminds me of another quote, this time, by Andrew Lang: *“He uses statistics as a drunkard uses lamp posts - for support rather than for illumination”*. Remember, the point is to communicate.

Your writing must avoid these pitfalls. Ignore the use of personal pronouns. **When you use a scientific term, you will structure the paragraph (or the next one) so that the term is defined/explained/given added value.** This has at least three marvelous consequences you/your:

- 1) work to ensure communication. The process may not be perfect – but this is school – not paradise.
- 2) demonstrate to the reader that you possess a reasonable grasp of the terms. You learn how to integrate a complex issue into your writing. **You become the educated expert.** Do not run from becoming expert. As the Nobel Laureate, Niels Bohr once quipped, *“An expert is a person who has made all the mistakes that can be made in a very narrow field.”* Frankly that belief has always been a comfort to me.
- 3) paper automatically becomes longer, more informative, more focused and proves your understanding of the material. It becomes longer without much more research on your part – **it becomes longer simply due to you telling the reader what you understand and what they should understand! That is a good thing!**

So, let's expand the prior reading:

From tea's anti-inflammatory properties to its role in promoting digestion, gut health and cardiometabolic health, it is becoming clear that tea has a plethora of good-for-you properties thanks to the antioxidants in the brew.¹ Antioxidants are compounds, (substances of two or more different elements) that help reduce oxidation and inflammation in the body by scavenging free radicals that can build up over time and promote disease.

Antioxidants reduce oxidation and the damage caused by oxidation. Oxidation is the loss of electrons from a substance, and in this case, the substances are your proteins, fats and nucleic acids. Antioxidants work by sacrificing their own electrons to radical species.^{1,2,3} So, antioxidants become oxidized (lose electrons) instead of your proteins or nucleic acids.

Radicals are a type of unstable chemical with an unpaired number of electrons.³ They may be created due to normal cellular activity, by reacting with oxygen or during the breakdown of food. Radicals may also be introduced to the body from environmental pollutants like tobacco smoke, pollution or pesticides.^{3,4} Radicals damage proteins, fats, and nucleic acids by ripping electrons from them.^{3,4} They are quite able to remove electrons from just about anything to satisfy their chemical instability. As written, such damage to proteins, or to nucleic acids such as DNA may lead to diseases. Tea may help protect us from such damage.

The full citation for works 1 – 4 should be found on a works cited page.

FINAL TERM PAPER

This course requires a term paper and a presentation on that work. **This term paper is due 17 April 2026.** You must get approval for your topic, in writing from me, by 12 March 2026. Approval of your idea **is graded**. All the rules apply regarding appropriate comportment of a university student, writing papers, citation, plagiarism, accuracy, etc... The final paper is worth 150 points. There is no final exam. The paper is, your "final." Thus, in the absence of a paper, you will automatically fail the class. Your paper will be returned to use in your presentation, assuming a hard copy was turned in. I will work to apprise you of problems, and of strengths. To have consideration for the full points available, your paper will:

- ➡ be on a topic pre-approved by the instructor by the week of ___March. **Topic approval is graded!!!!** Speak to me/email me about a topic. **For ideas/topics/possibilities**, check out the notes tab and video tab of my website for a list of past approved topics, OR find ideas at <http://www.chemistryexplained.com/index.html>
- ➡ be written so as to prove your mastery of the material per the grading guidelines.
- ➡ be six pages in length (exclusive of a title page, space for citations, diagrams, tables, and/or formal works cited)
- ➡ be word-processed, double-spaced, with a font equivalent to Times New Roman 12-point font, with 1" maximum margins on all sides for every page.
- ➡ include appropriate equations, vocabulary, formulae of chemicals, tables/graphs/charts of data (be aware that a page of such diagrams or data does not count towards your 6-page minimum unless the diagrams are fully explained.

- be original and written, for this course, use correct jargon and definitions, from the class and your research, and be accurate according to current mainstream scientific tenets.
- have all appropriate citations embedded and matching with a fully researchable works cited page
- be written as a treatise on **chemistry, using the ideas learned in this class.** (This is not a health or psychology paper (etc.), nor is it to be a persuasive piece). **This paper and its presentation are your final exam. Thus, you must demonstrate to me how this course helped you to investigate the topic, by using and defining appropriate vocabulary, citing Big Ideas (1- 4), referencing lab work and concepts from lecture.**
- be turned in as a printed copy, on time, by the due date.

The Three Scheduled Presentations & Your Participation:

The presentation of your term paper's work will be explained again, later in the semester. But, in short, **the presentation of your term paper** is worth 50 points and your participation in the presentation process of other students is worth another 50 points (for a total of 100 points). This is accomplished as a seminar series. There are no PowerPoint presentations.

These presentations occur on the dates found on the attached laboratory calendar. You will not read your paper to the lab group. All you need to do is answer the 5 questions found below. **For full credit (50 points), your presentation must include the answers to the following questions:**

Your presentation will consist of your responses to each of the following questions:

- How does your term paper dovetail specifically with work done in our class over the last semester? (20/50) (e.g., What is/are; the jargon, ideas, formula, chemical processes, lab work, readings, experiences, discussions associated with your work?)
- What surprises, attitudes, revelations, did you take away with you / learn, from your term paper? (5/50)
- Were you able to attack this issue again, how would the work change? (10/50)
(e.g., What would you wish to learn still / What different direction would you take?)
- What connections/impacts did the topic make with; •your major/•day-to-day life /•education? (10/50)
(You need to identify/discuss the connections to only one area, not all three)
- What would be one idea you wish the class members to learn from your work, and why is it an important idea? (5/50)

You will then field questions from your classmates. (part of a second set of 50 points)

There are no PowerPoint presentations. You do not read your paper to your classmates.

You may prepare/ write out your responses to the 5 questions in advance and just read those answers.

GRADING GUIDE FOR THE TERM PAPER

Meeting the mechanics of the paper (Each is a "must". There are no exceptions)

Your paper MUST contain / emphasize / use:

- completed by the deadline or we have agreed to a separate deadline for you, in advance of the original deadline.
- **embedded** citations from a minimum of 3 to 5 excellent sources which are also correlated in a separate works cited page. Each fact must be researchable. When you provide only a works cited, without noting the sources for each idea by embedding a source, per the instructions, then the facts cannot be researched. This applies to facts **and to diagrams**. **If you looked it up and put it in your paper – you must cite it by embedding the source and including that source on your works cited page.**
- chemistry & **less** descriptive biology. The work must focus on multiple issues regarding the biochemistry or chemistry of your idea(s) by looking at the type of reactions, bonds, energies, structures, solubilities, ideas studied in class etc.
- appropriate grammar double spacing, a font equivalent to Times New Roman 12 pt., 6 pages in length & appropriate margins of 1"

Meeting the content goals of the paper

Your paper contains / has / uses, the following:

metal	nonpolar molecule	mixture	kinetic energy
metalloid	covalent bond	compound	electromagnetic spectrum
nonmetal	ionic bond	element	hydrocarbon
noble gas	electrolyte	exothermic	functional group
density	non-electrolyte	endothermic	atom / ion / antioxidant
malleability	precipitate	saturated	temperature
matter	acid/base/buffer/pH	unsaturated	saponification
molecule (molecular)	cation	electronegativity	polymerization
ionic compound	anion	valence e- / octet	neutralization
reduction/oxidation	polymer	Law of the CM & E	chromatography
polar molecule	alloy	potential energy	ester / salt / alcohol / polyphenol

- definitions of and appropriate use of (or appropriately employed) vocabulary terms taught in this course, which touch upon the topic. Vocabulary terms, that are descriptive & add to the chemical conversation include, but are not limited to: **(50 pts)**
- for explanations as to the meaning of unfamiliar terms (those terms not from the course) **(20 pts)**
e.g. were you to use the phrase "disproportionation reaction" **you should explain what that means**
- chemical equations, structural, chemical formula(e), or other diagrams (with citations). When using a structural formula, be aware of the type of bond. When you write a chemical formula, be sure you have used the correct subscripts of the formula. **(5 pts)**
- **a demonstration of what you have learned - NOT a regurgitation of somebody else's work, but how you interpret and apply the chemical ideas, NOW THAT YOU HAVE TAKEN THIS COURSE. This includes but is not limited to connecting ideas to lab or lecture, use of correct vocabulary and explanations of those terms or new terms. (75 pts)**

Failure to meet a condition from the **mechanics section** results in a total score of zero points. You will be required to resubmit a corrected product. If you were asked to resubmit due to issues regarding mechanics your new score will be lower than if you had done it correctly the first time. Depending upon the infraction, you may or may not be able to score higher than a student who did not need to resubmit a paper. There will be a minimum of a 5% decrease at the least. The penalty amount may vary.

If you were given an opportunity to resubmit based upon failing to meet the **content goals** of the paper as expressed here and elsewhere, the new score cannot be greater than the lowest score of a student who did not need to resubmit.

Everyday Chemistry Syllabus

The syllabic topics are selected to enhance the laboratory work, provide a functional, and basic, chemical vocabulary, engender the habits which lead to successful researching, reading, interpretation, writing about chemical topics, and of course, enhance student interest. The curricular material studied can be changed to meet the needs and/or interests of class participants.

My goal is to address topics students ask me about - or to shift focus to pursue student interest, as long as the basic tenets of; biochemistry, biophysical chemistry, atmospheric chemistry, environmental chemistry, industrial, and/or consumer chemistry are followed. **I hope to integrate an understanding of basic chemistry into your "everyday life experience" and/or your major area of study. The syllabus will be affected by your expressed interests.**

A good understanding of basic chemistry can; help a marketer design a better campaign, enable an art or fashion student in the selection of materials, help a history major grasp the role of industrialization/discovery/the scientific process as a cause for changes in society, develop a deeper meaning for proper policy development for a lawyer, diplomat, or help a health major illustrate the role of the scientist in the culture, make you a savvier consumer / investor, and help to prepare a parent or caregiver to ask a medical professional appropriate questions for the benefit of their loved ones. For me, a basic understanding of chemistry should include, but is not limited to:

- 1) the Law of the Conservation of Mass, Energy and Charge (Big Idea #1)
- 2) the Concept of Charge (Big Idea #2)
- 3) Potential Energy (Big Idea #3)
- 4) the activity of / changes in the (valance) electrons of metals and nonmetals, in terms of redox reactions
- 5) the general properties of organic and inorganic compounds
- 6) the nature of a chemical bond, and the resulting behavior of matter in terms of intermolecular forces of attractions, reactivity, enthalpy, and entropy. (Big Idea #4)
- 7) the chemical activity of acids and bases
- 8) a discussion regarding nutritional ideas
- 9) the fundamentals of what is meant by nuclear chemistry (with Mass Defect acting as Big Idea #5)

Spring 2026 Everyday Chemistry Lab Schedule

KEEP YOUR EYE ON THESE DATES	
January 21	First Lab
February 20	Quest
March 12	Last day for topic selection for credit. By this date you need to have emailed me your topic for the final paper.
April 10	Quest
April 17	Final Papers are due
Week of April 29	Possible Quest

Topic is due

Final Paper is due

Wednesday
January 21 Safety/Orientation
January 28 (Process) Alchemy
February 4 (Process) Density /Measurement
February 11 (Mixture) Chromatography
February 18 No Lab
February 25 (Mixture) Water Analysis
March 4 (Mixture) Acid-Base
March 11 (Synthesis) Soap Preparation
March 18 Spring Break
March 25 (Synthesis) Polymer Synthesis
April 1 Food Analysis
April 8 (Process) Electrochemistry
April 15 (Mixture) Colligative Properties
April 22 Presentations #1
April 29 Presentations #2
May 6 Presentations #3

STUDENT COPY

EVERYDAY CHEMISTRY INTRODUCTORY PACKET ACKNOWLEDGEMENT /AGREEMENT

- I understand the requirements and expectations of the Everyday Chemistry course per the Introductory Packet made available to me as a hardcopy and online. This includes my understanding of the requirements regarding class lecture attendance, reading the blog, citations for written work, timelines, and grading.
 - I am expected to attend and engage in each lecture and read the blog after every publication.
 - I am expected to complete every assignment to the best of my ability.
 - Each assignment is to be word-processed/typed and handed in as a printed copy on time. I understand that digital work will not be graded.
 - I understand that I can restructure a schedule of due work, with advance notice and permission.
 - Information regarding dates/assignments/notes may be found at www.scientiaestubique.com
 - I am expected to email if I am late, cannot attend, need help and/or have a question.
 - I must cite all sources with embedded citations and a works cited page used to research any work on each report, paper, and assignment, with the exception of exams.
 - My written work must expand upon the vocabulary used to show what I know.
 - Communication is key. I can rework the due dates if I provide enough communication and time.
 - I understand that this is a lab-based course, and missing labs or incomplete lab work may fail me for the course.
- I know that I can find digital formats of the notes, the introduction packet, class lecture summaries (blog) and assignments at www.scientiaestubique.com
- I understand my responsibilities in terms of **attendance, reading, writing reports, citations, due dates, grading** as well as the other aspects of the course.
- I understand that I have multiple opportunities to ask questions about my responsibilities, and I understand that I should expect reasonable, timely responses. I understand that I am responsible for fulfilling my responsibilities.
- I realize that I can make appointments with the professor for help, discussion of grades and/or study purposes.

Please Keep this page for your records. Please sign and date the last page of this packet, which is effectively a copy of this page. You will turn the signed/dated last page into me, for my records.

NAME _____ (PLEASE PRINT)

EVERYDAY CHEMISTRY INTRODUCTORY PACKET ACKNOWLEDGEMENT /AGREEMENT

- I understand the requirements and expectations of the Everyday Chemistry course per the Introductory Packet made available to me as a hardcopy and online. This includes my understanding of the requirements regarding class lecture attendance, reading the blog, citations for written work, timelines, and grading.
 - I am expected to attend and engage in each lecture and read the blog after every publication.
 - I am expected to complete every assignment to the best of my ability.
 - Each assignment is to be word-processed/typed and handed in as a printed copy on time. I understand that digital work will not be graded.
 - I understand that I can restructure a schedule of due work, with advance notice and permission.
 - Information regarding dates/assignments/notes may be found at www.scientiaestubique.com
 - I am expected to email if I am late, cannot attend, need help and/or have a question.
 - I must cite all sources with embedded citations and a works cited page used to research any work on each report, paper, and assignment, with the exception of exams.
 - My written work must expand upon the vocabulary used to show what I know.
 - Communication is key. I can rework the due dates if I provide enough communication and time.
 - I understand that this is a lab-based course, and missing labs or incomplete lab work may fail me for the course.
- I know that I can find digital formats of the notes, the introduction packet, class lecture summaries (blog) and assignments at www.scientiaestubique.com
- I understand my responsibilities in terms of **attendance, reading, writing reports, citations, due dates, grading** as well as the other aspects of the course.
- I understand that I have multiple opportunities to ask questions about my responsibilities, and I understand that I should expect reasonable, timely responses. I understand that I am responsible for fulfilling my responsibilities.
- I realize that I can make appointments with the professor for help, discussion of grades and/or study purposes.

Student's Signature

Date: