

Abilene Approval Chart for Curriculum Changes

A = Approve I = Information Item R = Respond In Writing

Course Number: Chem 362 Nuclear Chemistry

or Degree Plan(s):

	Campus-Level Academic Review ¹	1	2	3	4	5	6
	Change to a Course Include signatures from all chairs/program directors for cross-listed courses. ¹						
1.	Title (description unchanged)	A	A	A	I	I	I
2.	Description (not affecting content)	A	A	A	I	I	I
3.	Course term(s)	A	I	A	I	I	I
4.	Content (change of course outcomes)	A	A	A	I	I	A
5.	Number of credit hours	A	A	A	A	A	A
6.	Course number within the hundred	A	A	I	I	I	I
7.	Course number beyond the hundred	A	A	A	A	A	A
8.	Prerequisites	A	A	A	I	I	I
9.	Course restriction (e.g., majors only, junior standing)	A	A	A	A	A	A
10.	Level change (U to G or G to U)	A	A	A	A	A	A
11.	Cross list course	A	A	A	A	A	A
12.	Department of record	A	A	A	A	A	A
13.	Open or close a course	A	A	A	A	A	A
	Change to a Degree Plan						
14.	Educational Program — Revise	A	A	A	A	A	A
15.	Educational Program — Adopt/revise admission requirements	A	A	A	A	A	A
16.	GPA — Revise program-required GPA	A	A	A	A	A	A
17.	Minor — Revise	A	A	A	A	A	A

		V	P	U	E	S	D	F	O	S
	Full Review									
	Change to Catalog Information (for Campus)									
18.	General requirements for Bachelor's and Associate Degrees	-	-	-	-	A	A	A	A	I
19.	Policies governing academic probation and suspension	-	-	-	-	A	A	A	A	I
20.	Requirements for graduating with honors	-	-	-	-	A	A	A	A	I
	Change to a Degree Plan									
21.	Educational Program — Add or Discontinue ^{2 3}	A	A	A	A	A	A	A	A	I
22.	Educational Program — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I
23.	Minor — Add or Discontinue	A	A	A	A	A	A	-	A	I
24.	Minor — Discontinue (Provost-proposed)	R	-	R	A	A	A	-	A	I
25.	Degree — Add or Discontinue	A	A	A	A	A	A	A	A	I
26.	Degree — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I

	Change to General Education Requirements for Undergraduates (System)	.	I	E	U	O	G	S	I	S
27.	Change course outcomes of an included course	A	A	A	A	A	A	-	A	I
28.	Add or drop a required course from the General Education Requirements	A	-	A	-	A	A	A	A	I
29.	Add or drop a course from a menu within the General Education Requirements	A	-	A	-	A	A	-	A	I
30.	Comprehensive revision of General Education Requirements	-	-	-	-	A	A	A	A	I

Notes

² Any change to a cross-listed course requires the signature of both department chairs or program directors overseeing the course to ensure that the courses stay in sync. This includes courses taught at other campuses (e.g. BIBL 101 and BIBO 101).

³ For undergraduate majors, a minimum of 30 hours is required. These programs must have a minimum of 6 elective hours, unless the requirements of external accrediting bodies make it impossible. Master's programs must include a minimum of 30 hours, and doctoral programs must include a minimum of 30 hours beyond the master's.

⁴ When a department/school or dean proposes closing a program, approval routing follows the typical process beginning with the department/school. An administrative proposal by the provost or senior vice president for academic affairs would follow the "provost-proposed" routing on the chart.

	Department/School(s)
	2/25/25
Chair Signature	Date

Chair/Program Director Signature	Date
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	College Academic Council(s)
	3/7/2025
Chair Signature	Date

Chair Signature	Date
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	Dean(s)
	3/7/2025
Signature	Date

Signature	Date
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Teacher Education Council	
Signature	Date

Campus Academic Council:	
Abilene Undergraduate or Abilene Graduate	
Signature	Date

Provost	
Signature	Date

University General Education Council	
Signature	Date

University Faculty

Abilene Faculty Senate Chair signature

Date

Dallas Faculty Council Chair signature

Date

Senior Vice President for Academic Affairs

Signature

Date

President

Signature

Date

Abilene New Course Application

Instructions

- Consult with the Registrar's Office to confirm a course number and ask any questions about effects on related degree plans.
- Complete the New Course Application.
- Create the course syllabus. Refer to the Syllabus Checklist and consult with the Adams Center Instructional Design team with any questions.
- Submit the application and syllabus to the Adams Center Instructional Design team by email to Scott Hamm for review and recommendations.
- Submit the application and syllabus for library review to Associate Dean Mark McCallon.
- Compile the full application and attachments. This includes at a minimum the approval chart, new course application, syllabus, and letters reviewing the syllabus and library support.
- Conduct departmental vote to approve addition of the course.
- Submit to College Academic Council.
- Your college will route the application from this point. The department chair will be notified of necessary meetings with university councils.

The course developer completes this application with all relevant supporting documentation before the new course is reviewed by the department or any academic council.

Syllabus Checklist

NOTE: It is not necessary to submit this checklist with the New Course Application. The checklist is used by the Adams Center in syllabus review. All items below are required unless otherwise marked.

About the Course

- Course number and title
- Credit hours
- Semester and year
- Meeting time and place (if face-to-face)
- Prerequisite/corequisite

About the Instructor(s)

- Name and title or rank
- Office location
- Phone number(s)
- Email address
- Office hours / contact expectations

Mission Statements

- ACU mission statement
- College mission statement
- Departmental mission statement
- Personal mission statement (optional)

Unique Christian Perspective

- Description of how learning and Christian faith are integrated in the course

Course Content

- Catalog description
- Intended audience
- Outline of topics
- Format of course/types of activities
- student should expect in the course

Teaching/Learning Methods and Format of Class Sessions

- Description of the types of activities students should expect in the course

Materials

- Required and optional materials, including textbooks, etc.

Student Learning Outcomes/Measurements

- Specific outcomes stated in measurable terms

- Assignments or instruments that will be used to assess the outcomes

Assessment/Grading Criteria

- Complete and accurate details of factors and elements that will compose the final grade
- Weight or point value of all graded elements
- Grading scale with expectations for letter grades
- Extra credit opportunities (optional)

University Policies

- Special needs policy — ADA
- Academic integrity policy and link
- Title IX policy

Course Policies

Expectations and consequences regarding:

- Attendance (if face-to-face)
- Tardiness (if face-to-face)
- Participation
- Course-specific academic integrity information
- Late assignment/exam policy

Course Calendar

Calendar is not required for New Course Application, but it must be included in all syllabi distributed to students.

- Exam dates
- Assignments
- Due dates and other deadlines
- Schedule of readings and topics
- Statement to reserve right to modify the calendar as necessary

Reference

Schedule Type definitions for Section 1K.

Traditional Lecture	Traditionally formatted course that may include a variety of teaching methods.
Traditional Lab	Usually affiliated with lecture course. Provides application of knowledge and learning experiences related to lecture content.
Traditional Lecture/Lab	Traditionally formatted course that may include a variety of teaching methods, and for which a lab experience is included and graded with the lecture portion of the course. One grade for both.
Experiential Learning	Application of knowledge or a learning experience not typically connected to a lecture course. Examples include theatre workshop, field experience, practicum, internship and active research courses.
Seminar	Course in which a topic is discussed by a teacher and a small group of students. Examples include colloquia and workshops.
Studio	Application of knowledge or a learning experience that combines lecture, active learning and discussion among the teacher and students in a studio environment. Examples include art, design and music.
Thesis	Required course for students working on graduate thesis.
Dissertation	Required course for students working on doctoral dissertation.

Guidance for writing student learning outcomes in Section 3B.

	Student Learning Outcome	Measurement
	<i>Instructions:</i> Outcomes should be observable and measurable, and stated in terms of student performance. It can be helpful to complete the sentence “Students will be able to...” If the outcomes are primarily cognitive, consider using Bloom’s Taxonomy to evaluate whether the competencies are at an appropriate level for the course. In the rarer instances where affective or psychomotor competencies are used, give careful attention to measurement techniques.	<i>Instructions:</i> Detail the instrument that will be used to gather the measurement. Examples might include: written papers, quizzes, tests, verbal presentations, video, audio, portfolio artifacts, demonstrations, performances, etc. This column should indicate where you will look for evidence of the type of student work that you expect.
1	Defend dietary goals in light of current research.	Weekly Reading Journal, Research Paper
2	Examine personal values, attitudes and expectations to enhance self-awareness for greater effectiveness as a social work professional.	Field Instructor Evaluation
3	Integrate terminology from literary history into writing.	Research Paper

Abilene New Course Application

You may delete the preceding instructional pages before submitting application.

Course ID (<i>Subject Code and Number</i>)	CHEM 362
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1. Systems and Catalog Information Complete each item.

A	Course Developer	James Johnstone, Ph.D.
B	Course Instructor	James Johnstone, Ph.D.
C	Course Title	Nuclear Chemistry
D	Course Abbreviation for Banner if title is more than 30 characters	Nuclear Chemistry
E	College	OSE - Onstead Science and Engineering
F	Department or School	C&BC - Chemistry & Biochemistry
G	Number of Credit Hours	3
G1	Number of Lecture Contact Hours	3
G2	Number of Lab Contact Hours	0
H	Is the course for a fixed or variable number of credit hours?	Fixed If variable, explain rationale:
I	Is the course repeatable for additional credit?	No
J	Maximum total number of credit hours a student can earn for this course	3
K	Course Schedule Type	Lecture (LEC) See Schedule Type definitions in the Reference section.
L	Number of Faculty Workload Hours	3
M	Grading Mode	Standard

N	Maximum Enrollment	30
O	Catalog Description (50 words or less)	An introduction to the atomic nucleus and its influence on chemistry. Focuses on the chemical and physical properties of radioactive isotopes, nuclear properties, macroscopic phenomena intimately tied to nuclear processes, and measurement techniques based on nuclear phenomena.
P	List any prerequisites (course/s, test scores, class standing, major, etc.)	A "C" or better in the following: MATH 185 Calculus I or MATH 131 Calculus for Application, CHEM 134 General Chemistry II, PHYS 112 General Physics II or PHYS 222 Engineering Physics II (or by permission of the instructor).
Q	List any corequisites (these <i>must</i> be taken at the same time; note that a single requirement cannot be both a prerequisite <i>and</i> a corequisite)	N/A
R	If the course is cross-listed, specify the subject code and course number of the other course	N/A
S	Does this course require any additional student course fees?	No If yes, attach a completed course fee form .
T1	Will the course be offered in fall terms?	No
T2	Will the course be offered in spring terms?	Yes, even years
T3	Will the course be offered in summer terms?	No
U	First semester this course will be offered under new Course ID. <i>May not be earlier than the coming fall semester.</i>	Spring 2026

V	Is this course required for a program(s)?	Yes If yes, submit a separate completed curriculum proposal to change the program(s).
W	Should the addition of this course be retroactively applied to the degree plan it supports? <i>This is rare, and rationale should explain compelling extenuating circumstances.</i>	No If yes, provide rationale:
X	Has this course been offered as a Special Topics course? <i>New courses are not required to be taught as Special Topics courses prior to approval.</i>	Yes If yes, provide course ID, term, and enrollment: CHEM 340.01, Fall 2023, Enrolled - 20
Y	List any courses in which the content overlaps the proposed course. (Course ID and Name). <i>Attach a statement from the instructor/dept chair of the existing course justifying the new offering.</i>	N/A

2. Curriculum

- A. Explain any effects of this course on any degree plans. If the addition of the course alters program requirements, submit a separate [Approval Chart for Curriculum Change](#) to update the program.

CHEM 362 will be added as an upper-level elective to the existing Chemistry & Biochemistry degrees: B.S. Chemistry, B.S. Biochemistry-Biomedical Sciences track, B.S. Biochemistry-ACS track, ACS Medicinal Chemistry track, and ACS Research track. CHEM 362 will also be listed in a proposed B.S. Chemistry-Nuclear Chemistry track.

- B. Justify the addition of this course to the current curriculum, explaining the gap it meets.

With the establishment of the Nuclear Energy eXperimental Testing Laboratory (NEXT Lab) in the Dillard Science and Engineering Research Center there is an increased need for nuclear science education on campus. This exciting direction for research at ACU has sparked a new excitement for nuclear science on campus. Nuclear chemistry is a niche part of chemistry education but is highly important to the work going on at NEXT Lab. This course will help support our chemistry, biochemistry, biology, physics, and engineering students in their efforts doing undergraduate research as part of NEXT Lab as well as enabling future pathways for them into nuclear science.

3. Course Design

- A. Audience and Course Goal

1. Describe the intended audience, including prerequisite skills.

The intended audience for CHEM 362 is juniors and seniors majoring in chemistry, biochemistry, biology, engineering, or physics who are interested in careers involving nuclear science. Because this course will

exist at the intersection of chemistry and physics, students must have a passing understanding of fundamental concepts in chemistry and physics.

2. State the overarching course goal(s) in performance terms.

The goal of this course is to provide an overview of fundamental concepts related to radioactive nuclides and radiation and how those relate to broader fields including chemistry, physics, and medicine.

B. Student Learning Outcomes and Measurements

	Student Learning Outcome	Measurement
1	Inspect the structure and behavior of the atomic nucleus	Homework, Exam 1, Exam 2, Exam 4
2	Analyze the historical development of nuclear physics and cosmology, evaluating key discoveries and their impact on our current understanding of the universe.	Exam 1, Exam 4
3	Develop skills in solving numerical problems dealing with numbers differing by orders of magnitude	Homework, Exam 1, Exam 2
4	Compare how different types of radiation interact with matter and how that influences radiation safety	Homework, Exam 3
5	Contrast the advantages and disadvantages of nuclear power	Exam 4
6	Present scientific material to a broad audience	Final presentation

C. Text and Resources

Give the full publication information of the textbook/s and other required resources and outside readings. For **combined undergraduate/graduate** courses, make two lists:

- A. full publication information; label **Undergraduate**.

Required text:

Modern Nuclear Chemistry, 2nd edition by Loveland, Morrissey, & Seaborg, John Wiley & Sons, Inc. (2017), ISBN 978-0470906736

Optional texts:

Nuclear & Radiochemistry, 3rd edition by Friedlander, Kennedy, Macias, & Miller, John Wiley & Sons, Inc. (1981), ISBN 978-0471862550

Radiation Detection and Measurement, 4th edition by Knoll, John Wiley & Sons, Inc. (2010), ISBN 978-0470131480

Techniques for Nuclear and Particle Physics Experiments by Leo, Springer (1994), ISBN 0387572805

- B. full publication information; label **Graduate**.
N/A

4. Supporting Documentation

Required of all applications	
1	Approval Chart for Curriculum Changes
2	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
4	Library — Submit new course application and syllabus to the Library dean's office. Attach the Library's memo.
Attach if applicable	
5	Content Overlap — Include one document for each course you listed in Section 1Y. Attach statement from instructor/dept chair of existing course justifying the new offering.
6	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location(s).
7	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
8	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
9	Justification — Attach any documents to which you refer in Section 2B.

Nuclear Chemistry

Fall 2023 Syllabus



CHEM-340.01
3 credit hours

Days/Time: MWF 9:00 – 9:50 AM
Class Location: Onstead Science B34

Professor:	Dr. James Johnstone, Assistant Professor	Office phone:	(325) 674-2157
Office:	Halbert-Walling Rm 312		
Office hours:	Mon. 1-3 pm Wed. 3-5 pm Fri. 1-3 pm	Campus mail:	ACU Box 28132
		Email:	jej12a@acu.edu

Mission Statements

Mission of Abilene Christian University

To educate students for Christian service and leadership throughout the world.

Mission of the Onstead College of Science and Engineering

The mission of the Onstead College of Science and Engineering is to explore and understand God's creation in the natural world and apply the acquired knowledge and principles to address its issues and challenges.

Mission of the Department of Chemistry and Biochemistry at ACU

To prepare students for careers in chemistry, biochemistry, chemical education, and health professions by displaying high professional standards and by modeling Christian values, leadership, and service.

Unique Christian Perspective

As a chemist, I believe that the study of creation leads us closer the Creator. God gave us creation to steward and use and I believe that includes learning what we can about the world. Delving into the topic of nuclear chemistry gives us the opportunity to learn about some of the fundamental parts of creation and in that way worship the Creator. As we learn more about nuclear chemistry, we become better equipped to serve the world in fields like medicine, nuclear power, and non-proliferation.

Course Information

Course Description

An introduction to the atomic nucleus and its influence on chemistry. Focuses on the chemical and physical properties of radioactive isotopes, nuclear properties, macroscopic phenomena intimately tied to nuclear processes, and measurement techniques based on nuclear phenomena. Prerequisite: MATH 185 Calculus I or MATH 131 Calculus for Application, CHEM 134 General Chemistry II, PHYS 112 General Physics II or PHYS 222 Engineering Physics II (or by permission of the instructor).

Course Format

Class time will be divided among lecture, discussion, and occasional demonstrations/videos. Class discussion and questions are always welcomed, but no class participation grade or group grades will be given. Students are expected to take accurate notes, to fully participate in class activities, and to read any assigned materials. Students are encouraged

to ask for clarification on any material covered in class and are encouraged and welcomed to visit the instructor during office hours.

Course Content and Calendar

Unit	Topic	Minor Assessments	Major Assessment	Major Assessment Date
Unit 1	History of radiation and nuclear basics	Homework & Quizzes	Exam 1	September 22
Unit 2	Nuclear structure	Homework & Quizzes	Exam 2	October 13
Unit 3	Interaction of radiation with matter and radiation safety	Homework & Quizzes	Exam 3	November 10
Unit 4	Nucleosynthesis and nuclear power	Homework & Quizzes	Exam 4	December 1

The instructor reserves the right to adjust the schedule as needed.

Course Outcomes

At the end of the course, students should expect competency related to:

Objective	Assessments
Inspect the structure and behavior of the atomic nucleus	Homework, Exam 1, Exam 2, Exam 4
Analyze the historical development of nuclear physics and cosmology, evaluating key discoveries and their impact on our current understanding of the universe.	Exam 1, Exam 4
Develop skills in solving numerical problems dealing with numbers differing by orders of magnitude	Homework, Exam 1, Exam 2
Compare how different types of radiation interact with matter and how that influences radiation safety	Homework, Exam 3
Contrast the advantages and disadvantages of nuclear power	Exam 4
Present scientific material to a broad audience	Final presentation

Course Resources

Required: (a) *Modern Nuclear Chemistry* by Loveland, Morrissey, & Seaborg

(b) A scientific or graphing calculator

Optional: (a) *Nuclear & Radiochemistry* by Friedlander

(b) *Radiation Detection and Measurement* by Knoll

(c) *Techniques for Nuclear and Particle Physics Experiments* by Leo

Course Policies

Grading Policy

The following is the *strict* grading scale by which all grades will be determined:

A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = below 60

The course grade will be distributed according to the following distribution:

1. Exams (4) – 60% (15% each)
 - Tentative exam dates: September 22, October 13, November 10, December 1
2. Final Presentation – 20%
3. Assignments (homework, quizzes, etc.) – 20%

At least one-week prior notice will be given for every exam. The final is scheduled for Thursday December 14th from 2:00 pm to 3:45 pm. No make-up exams will be given without a physician's note or dean's notice for a university-related trip or ACU notification of required self-isolation due to COVID exposure. Exams, assignments, and quizzes missed because of **university-approved** trips should be completed and turned in prior to the trip (make arrangements with the instructor). If you are ill, you must notify the instructor within 24 hours of any missed exam or quiz.

Attendance Policy

Students are strongly encouraged not to miss class. The instructor may drop any student with **more than 10 absences** from the course, regardless of the reasons for the absences. You should inform the instructor at least *one week in advance* concerning university-approved events that will cause you to be absent and provide the university form completed by the event sponsor and signed by the dean and provost. For absences due to illness or emergency, inform the instructor *no later than* 48 hours after the class period you missed. You are responsible for the material covered in class when you are absent and all assignments are due on the assigned date regardless of class attendance. The student is responsible to contacting the professor to get any materials missed due to absence.

Electronic devices

Please bring your iPhone, iPad or iPod to class, but make sure they are in silent mode (OFF during testing). Students are not allowed to wear headphones during class. No electronic devices, phones or smart watches will be allowed on student desks during quizzes or exams.

Dress Code and COVID safety requirements

Students should conform to the dress code as outlined in the Student Handbook. To keep all members of our community safe, we ask that you follow any university guidelines for health and safety, regardless of COVID vaccination status.

Students wearing inappropriate attire or not abiding by any health or safety protocols will be asked to leave class. The full ACU Dress Code may be viewed at <https://acu.edu/dean-of-students/student-handbook/>.

Agree Not to Share

ALL course materials posted in Canvas or handed out in class are copyrighted and are not to be shared in any format. This includes pictures, problems, or documents, provided by instructor or teaching assistants. No materials used in this class, including, but not limited to, online pages, images/pictures, documents, videos, problems, examples, assessment items (questions on quizzes or exams), in class materials, review sheets, or additional problem sets, may be shared online (or in any other way) or with anyone outside of the class unless you have the author's/creator's explicit, written permission. Such unauthorized sharing of materials is considered an act of academic dishonesty. Any suspected unauthorized sharing of materials will be investigated and if warranted, will be reported. These reports can result in sanctions, including but not limited to, failure in the assignment and/or course. Recording lectures is not permitted without express permission from the instructor. Accommodations which include permission to record will be respected but the instructor must be included in communication regarding these accommodations. Such recordings for private use must not be shared as described in the paragraph above.

Use of AI in class

In chemistry classes, use of generative AI is inappropriate on assignments such as those involving reflection or sharing one's beliefs, perspectives, or experiences; summarization of scientific work as in annotated bibliographies or abstracts; analysis and assimilation of relevant facts into an organized written document. These uses undermine personal academic growth. Use of AI is permissible under certain circumstances such as using generative AI as one might a search engine or other office aid software (i.e. citation software or grammar and spelling checkers). Using AI for problem solving is specifically NOT permitted. If a student intends on using AI for an assignment, the student is responsible for confirming with the instructor whether AI is permitted for specific functions. Should a student choose to use AI to complete an assignment, the student must disclose how AI contributed to the work. Not disclosing use of AI on an assignment or using AI without express permission from the instructor constitutes a violation of academic integrity.

ACU Policies

Academic Integrity

Academic integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent and therefore, are a form of lying. Such actions are contrary to behavioral norms that flow from the nature of God. Academic misconduct includes, but is not limited to, the following: 1) Failure to give credit to sources used in a work in an attempt to present the work as one's own, 2) Submission of papers or projects obtained from another source (e.g., research service or club paper file) as one's own, and 3) Falsifying information orally or in writing. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of your school, and the Dean of Student Life will be notified. The full policy, ACU's Academic Integrity Policy, is available for review at the Provost's office web site: <https://cdn01.acu.edu/community/offices/administrative/office-of-the-provost/academic-integrity-policy/overview.html>

ADA Compliance

Abilene Christian University is dedicated to removing barriers and opening access for students with disabilities in compliance with ADA and Section 504 of the Rehabilitation Act. The Alpha Scholars Program facilitates disability accommodations in cooperation with instructors. In order to receive accommodations, you must be registered with Alpha Scholars Program, and you must complete a specific request for each class in which you need accommodations. If you have a documented disability and wish to discuss academic accommodations, please email alpha@acu.edu call their office directly at 325-674-2667.

Anti-Harassment Policy

As a professor, one of my responsibilities is to help create a safe learning environment on our campus. I also have a mandatory reporting responsibility related to my role as a professor. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the greatest extent possible. When I am not able to keep your information confidential, I will only share it with responsible administrators on campus who can provide you with services and resources. I am required to share with the Title IX Coordinator information regarding sexual misconduct or

harassment, dating or domestic violence or stalking that you report to me. If you would prefer to share information in a confidential setting, I encourage you to speak with someone in the ACU Counseling Center. All of your options are available for review in ACU's policy: <https://acu.edu/human-resources/title-ix-and-sexual-misconduct-information/>

Bias Education and Response Team (BERT)

Bias incidents affect our ability to work with, instruct and learn from each other. For more information about the reporting process of bias incidents at ACU, see <https://acu.edu/about/diversity-and-inclusion/bert/>

SOAR (Student Opportunities, Advocacy, and Resources)

SOAR partners with faculty, staff, parents and students to assist ACU students and connect them to resources available to support their path to success. For more information about SOAR or to make a SOAR recommendation, see <https://acu.edu/soar-program/>

By convention sweet is sweet, bitter is bitter, hot is hot, cold is cold, color is color; but in truth there are only atoms and the void – Democritus (460 BC – 370 BC)

By faith we understand that the universe was created by the word of God, so that what is seen was not made out of things that are visible – Hebrews 11:3

MEMORANDUM

DATE: February 24, 2025
TO: Dr. James Johnstone
CC:
FROM: Mark McCallon, Associate Dean for Library Services
RE: New Course Proposal – CHEM 362 – Nuclear Chemistry

After reviewing the course application and syllabus, the Library should be able to support the proposed course. Please let us know if additional resources are needed to support the proposed course. Thank you for letting us review the course application and syllabus.



February 24, 2025

Dr. James Johnstone
Assistant Professor
Department of Chemistry and Biochemistry
Onstead Science B34
(325) 674-2157
jej12a@acu.edu

Re: Nuclear Chemistry (CHEM 340)

Dear Dr. Johnstone,

Thank you for submitting Nuclear Chemistry (CHEM 340) to us for review. I have reviewed it based on the ACU Syllabus Guidelines. I found the syllabus to meet all aspects of the checklist.

Please note that this letter is intended as a reference, which will be read by the department chair and council members, who may also have questions or comments of their own. If you have any questions, please feel free to let me know.

Please also let me know if we can help in the design and facilitation of this course.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. Hamm', written over a horizontal line.

Dr. Scott E. Hamm,
Assistant Director, Adams Center

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

MEMORANDUM

DATE: February 24, 2025
TO: Dr. James Johnstone
CC:
FROM: Mark McCallon, Associate Dean for Library Services
RE: New Course Proposal – CHEM 362 – Nuclear Chemistry

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