

Abilene Approval Chart for Curriculum Changes

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

Course Number: NSE 610 Nuclear Science & Engineering Graduate Seminar or Degree Plan(s):

NSE 610 (Nuclear Science & Engineering Graduate Seminar) is a weekly forum where graduate students can present current research, engage in technical discussions with visiting speakers, and sharpen their presentation and critical-thinking skills.

		Dept/ School	College	Dean	TEC	AUAC/Grad	Provost
	Campus-Level Academic Review¹						
	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

		Dept./School	College	Dean	TEC	AUAC/Grad	Provost	Campus Faculty	Senior VPAA	President
	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

		Dept./School	College	Dean	AUAC	Provost	UGEC	University Faculty	Senior VPAA	President
	Change to General Education Requirements for Undergraduates (System)									
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

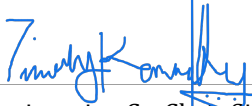
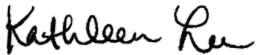
² Any change to a cross-listed course requires the signature of both department chairs or program directors overseeing the course to ensure that the courses stay in sync. This includes courses taught at other campuses (e.g. BIBL 101 and BIBO 101).

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.

Updated 8/1/2023

Department/School(s)	
	3/18/2026
Engineering Co-Chair Signature	Date
	March 18, 2026
Physics Co-Chair Signature	Date
	March 18, 2026
Chair/Program Director Signature	Date
College Academic Council(s)	
	March 18, 2026
Chair Signature	Date
Chair Signature	Date
Dean(s)	
	3/19/2026
Signature	Date
Signature	Date
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

You may delete the preceding instructional pages before submitting application.

Course ID (<i>Subject Code and Number</i>)	NSE 610
--	---------

1. Systems and Catalog Information Complete each item.

A	Course Developer	Mark DeHart
B	Course Instructor	Mark DeHart
C	Course Title	Nuclear Science & Engineering Graduate Seminar
D	Course Abbreviation for Banner if title is more than 30 characters	Nucl. Sci. Engr Grad Seminar
E	College	OSE - Onstead Science and Engineering
F	Department or School	PHYS - Engineering & Physics
G	Number of Credit Hours	1
G1	Number of Lecture Contact Hours	1
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?	Yes
J	Maximum total number of credit hours a student can earn for this course	3 for master's program, 6 for doctoral program without master's
K	Course Schedule Type	Seminar (SEM) See Schedule Type definitions in the Reference section.

L	Number of Faculty Workload Hours	1
M	Grading Mode	Credit/No Credit
N	Maximum Enrollment	30
O	Catalog Description (50 words or less)	A required graduate seminar for nuclear engineering students. Focuses on the presentation and critical discussion of current research topics, with contributions from students, faculty, and guest speakers to explore advancements in the field.
P	List any prerequisites (course/s, test scores, class standing, major, etc.)	
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)	
R	If the course is cross-listed, specify the subject code and course number of the other course	
S	Does this course require any additional student course fees?	No If yes, attach a completed course fee form (see form "Request to Add or Change Course Fees").
T1	Will the course be offered in fall terms?	Yes, every year
T2	Will the course be offered in spring terms?	Yes, every year
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>	Fall 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>	No If yes, provide course ID, term, and enrollment:
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>	None

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.

NSE 610 is a mandatory 1-credit course for all Nuclear Science and Engineering graduate students, integrated into MS/PhD degree plans. Graded S/U, it does not affect GPA but is essential for academic standing and fulfilling graduation requirements. It complements coursework by providing exposure to current research and fostering professional development.

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

NSE 610 fills an important gap in the curriculum by providing a dedicated forum for advanced academic and professional development. While core NSE courses deliver foundational and specialized knowledge, NSE 610 offers a unique opportunity for students to engage directly on research topics and emerging trends that will evolve rapidly relative to fixed course content. It specifically cultivates essential graduate-level skills: presenting complex ideas, engaging in informed discussion, and networking with faculty and guest experts. This course ensures students are not only knowledgeable but also skilled communicators and critical thinkers, prepared for impactful careers.

3. Course Design

A. Audience and Course Goal

1. Describe the intended audience, including prerequisite skills.

The intended audience for NSE 610 is all graduate students enrolled in the Nuclear Science and Engineering program. Students are expected to possess a strong undergraduate foundation in engineering, physics, or a related scientific discipline, enabling them to comprehend technical literature and engage with advanced scientific concepts. They should also demonstrate fundamental research and critical thinking abilities.

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

The goal of this course is to equip students with the ability to effectively articulate and present complex research topics and findings within nuclear science and engineering. Students will learn to analyze and engage in informed discussions about current advancements, methodologies, and challenges in the field, enabling them to develop professional skills and stay abreast of the evolving landscape of nuclear science and engineering.

B. Student Learning Outcomes and Measurements

Student Learning Outcome	Measurement
1. Present Effectively: Deliver clear, concise, and engaging presentations on research plans and/or findings.	Satisfactory performance on student presentation, assessed by instructor for clarity, organization, content, and Q&A engagement.
2. Critically Analyze: Understand and discuss research topics, methodologies, and advancements within nuclear science and engineering.	Quality of participation in seminar discussions.
3. Engage in Discussions: Formulate insightful questions, provide constructive feedback, and participate actively and respectfully in academic discussions.	Consistent and respectful participation in class discussions; formulation of relevant and insightful questions.
4. Demonstrate Current Awareness: Demonstrate awareness of current developments, emerging trends, and professional opportunities in nuclear science and engineering.	Evidence of current awareness demonstrated through active participation and engagement during seminar sessions - e.g., asking probing questions about emerging work or contributing to topical discussions.

C. Text and Resources

No text/resources required for Seminar

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 Science & Engineering Graduate Seminar

Instructor: Dr. Mark DeHart (Mark.DeHart@acu.edu)

About the Course

In this course, we engage with the dynamic landscape of current research and advancements in nuclear science and engineering. This seminar provides a platform for graduate students to enhance their presentation and critical thinking skills, participate in technical discussions, and stay informed on the rapidly evolving frontiers of the field. The curriculum is enriched by a rotating roster of student-led presentations, faculty research interests, and insights from distinguished guest speakers.

Course number and title: NSE 610 - Nuclear Science & Engineering Graduate Seminar

Credit hours: 1

Semester and year: Fall 2026

Meeting time: Fridays at 3:00 – 3:50 PM

Meeting place: Onstead Science Center (OSC) 345

For your convenience, here is a [link to the ACU campus map](#)

Prerequisites/corequisites: None

Catalog description: A required graduate seminar for nuclear engineering students. Focuses on the presentation and critical discussion of current research topics, with contributions from students, faculty, and guest speakers to explore advancements in the field.

Intended audience: All graduate students in the Nuclear Science and Engineering program.

About the Teacher

Instructor: Dr. Mark DeHart, Associate Professor, Director of the Nuclear Science and Engineering Graduate Program

Office location: Onstead Science Center (OSC) 138

Phone number(s): (325) 674-2066

Email address: Mark.DeHart@acu.edu

Office hours/Contact expectations: MWF 3:00 – 4:00 PM or by appointment

Mission Statements

ACU Mission: The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

College Mission: 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. The college offers programs in the natural sciences, engineering, and mathematics. These programs combine the rigor of scientific and technical disciplines with the critical thinking, ethical reasoning, and spiritual perspectives that are central to a Christian liberal arts education.

Department Mission: To prepare graduate students for impactful careers across the spectrum of nuclear science and engineering by equipping them with deep scientific knowledge, cutting-edge research experience, and versatile technical and professional skills. The program emphasizes integrity, leadership, and service, modeled through rigorous academic standards and Christian values, while promoting innovation, interdisciplinary collaboration, and professional excellence within the evolving field of nuclear science and engineering.

Unique Christian Perspective:

"An intelligent heart acquires knowledge, and the ear of the wise seeks knowledge."
– Proverbs 18:15

In NSE 610, as we explore ongoing research and advancements in nuclear science and engineering, we are called to engage with both intellectual rigor and Christian character. We strive to consider the ethical implications and broader societal impact of our work, recognizing our responsibility to contribute to human prosperity and to serve others. Guided by principles of integrity, stewardship, and a commitment to understanding the world God has created, this course deeply values active listening, thoughtful inquiry, and honest, respectful discussion. Through attentiveness and discussion, we seek to determine how our scientific endeavors can best reflect these values and honor God in our pursuit of knowledge and service.

Course Content

Outline of topics: The specific topics for this seminar are fluid and will cover current research and developments across the broad spectrum of nuclear science and engineering. These may include, but are not limited to: nuclear physics, reactor design and safety, nuclear materials, radiation protection, the nuclear fuel cycle, advanced

nuclear technologies, nuclear policy, and ethical considerations in the field. Weekly topics will be determined by the research focus of student presenters, the expertise of faculty contributors, and the interests of guest speakers.

Format of Class

Format of Class: This seminar is fundamentally interactive. Each session will typically feature a presentation by a student, faculty member, or guest speaker, followed by a dedicated period for questions and discussion. Active listening and engaged participation are key to the success of this course.

On-line: If we ever need to meet on-line, we will use Zoom. In such instances, we will generally meet during our normal class times and do our best to recreate the face-to-face experience. In light of this, it is important that you be visible online and prepare to take an interactive part of the course.

Instructional Materials

Course texts: There is no required textbook for this course. When presenting, students are expected to use resources and best practices for effective scientific presentations.

Learning Outcomes

Student Learning Outcome	Measurement
1. Present Effectively: Deliver clear, concise, and engaging presentations on research plans and/or findings.	Satisfactory performance on student presentation, assessed by instructor for clarity, organization, content, and Q&A engagement.
2. Critically Analyze: Understand and discuss research topics, methodologies, and advancements within nuclear science and engineering.	Quality of participation in seminar discussions.
3. Engage in Discussions: Formulate insightful questions, provide constructive feedback, and participate actively and respectfully in academic discussions.	Consistent and respectful participation in class discussions; formulation of relevant and insightful questions.
4. Stay Current: Be informed of current developments and emerging trends in nuclear science and engineering.	Demonstrated awareness of current trends and opportunities in the field

through active participation and technical growth.

Assessment and Grading

Grading: This course is graded on a Satisfactory (S) / Unsatisfactory (U) basis. To receive a Satisfactory grade, students must actively participate and fulfill all course requirements as outlined below.

Criteria for Satisfactory (S): To earn an "S" grade, students must demonstrate consistent engagement and successfully complete the following:

- Attendance (80%): Regular and prompt attendance is mandatory. Active and thoughtful participation in discussions, including asking relevant questions, offering insights, and providing constructive feedback during Q&A sessions, is expected. Missing more than three class sessions without prior instructor approval may result in an "U" grade.
- Student Presentation (20%): Each student will prepare and deliver one formal presentation on a current research topic in nuclear engineering (or their own thesis/dissertation research). The presentation must be well-researched, clearly organized, engaging, and adhere to time limits. The quality of the presentation, as assessed by the instructor, must be deemed satisfactory.

Criteria for Unsatisfactory (U): A grade of "U" will be assigned if a student fails to meet any of the "Satisfactory" criteria, including but not limited to: excessive unexcused absences, failure to deliver a satisfactory presentation, consistent lack of participation

Rules for discussing grades: Please respect the privacy of your peers and do not pressure your classmates to discuss their grades with you. I welcome the opportunity to discuss any of your grades. Grades are considered set two weeks after the grades have been posted to Canvas. Any objection must be received prior to conclusion of the two-week period, otherwise I will assume you consent to the posted grade.

Weekly Homework: None.

In-class Exams: None.

Final Exam: None.

University Resources

I care about your class experience. The university also has a number of resources in place to support the ACU community both in this class and all aspects of university life.

Reporting Violations / Concerns / Complaints

Incident reports alleging violations of Student Conduct or concerns/complaints can be submitted [here](#). Please use the form to submit information about an incident to Student Life / Office of the Dean of Students.

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/>.

Mental Health Resources

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. Abilene Christian University is committed to supporting students addressing any of these concerns.

You can contact the [Medical and Counseling Care Center](#) at counseling@acu.edu, or by calling 325-674-2626. In addition, you can access free confidential counseling services through the Timely Care app by downloading their app on any device. In a crisis situation contact the National Suicide Prevention Hotline open 24/7 by dialing 988, or call the Police at 911.

University Policies

ADA Compliance Policy:

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 ACU website provides more information at <https://acu.edu/about/uap/overview-2/about-2/>. Please contact me to discuss any approved accommodations that you require for this class.

Title IX Policy:

At ACU, we strive to comply with all applicable legal requirements prohibiting, preventing, and responding to sexual misconduct against any member of the ACU community. The full Title IX policy and process can be found at <https://acu.edu/human-resources/title-ix-and-sexual-misconduct-information/>.

Academic Integrity Policy:

Academic integrity is demonstrated by behavior that honors the learning environment, regardless of setting, context, location or modality. ACU's Academic Integrity Policy can be found at <https://acu.edu/office-of-the-provost/academic-policies/>.

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 by clicking on the link to ACU's [policy](#).

Course Policies

Attendance/tardiness: Attendance and active participation are essential components of NSE 610, fostering a collaborative learning environment. If you are feeling unwell or have been exposed to a contagious illness, please prioritize your health and refrain from attending in person. Notify me as soon as possible regarding your absence.

Consistent attendance (80% minimum) and thoughtful engagement in discussions are crucial. If you anticipate needing to miss a class, please inform me beforehand when possible.

If you are scheduled to give a presentation, an absence on that date must be discussed in advance for rescheduling to avoid receiving a grade of zero.

Arriving on time is important for maintaining the flow of our seminar. Repeated tardiness may affect your final grade.

Participation: Your participation in discussions enriches the seminar experience for everyone. I encourage you to pose insightful questions and provide constructive feedback. Disruptive behavior or disrespectful language towards classmates will not be tolerated and may result in removal from the class. Refer to the [ACU student handbook](#) for more information on such policies.

On-line Decorum: Just as you treat people with respect in the classroom, I expect you to extend that respect to on-line seminars as well. Exercise the Golden Rule and give each other the benefit of the doubt when possible.

Dress Code: Please follow the student guide. If you are unsure, do not wear it. Respect your classmates. I reserve the right to ask you to remove hats when appropriate.

Drop Policy: All university policies and deadlines must be followed.

Technology use: While technology can enhance learning, it's important to minimize distractions. Cell phones, laptops, and other electronic devices should only be used for class-related activities during our sessions. If a device interrupts the class or distracts others, it may result in dismissal from the session. Frequent disruptions could lead to further action.

Calendar

General Schedule: The seminar schedule is dynamic and will be built around student presentations, faculty research interests, and guest speaker availability. A preliminary schedule outlining key themes and initial presentation slots will be provided at the beginning of the semester. In general, the calendar will have the following form.

DATE	Lecturer
Week 1	Department Chair – welcome and opening session
Week 2	Faculty 1
Week 3	Guest 1
Week 4	Faculty 2
Week 5	Guest 2
Week 6	Guest 3
Week 7	Student Presentations
Week 8	Faculty 3
Week 9	Guest 4
Week 10	Student Presentations
Week 11	Guest 5
Week 12	Guest 6
Week 13	Student Presentations
Week 14	Faculty 4
Week 15	Faculty 5
Finals Week	Guest 7 No Final Exam!

Student Presentations: A sign-up sheet for student presentation dates will be circulated during the first two weeks of class. Students must submit their proposed presentation topics to the instructor for approval at least two weeks prior to their scheduled presentation date.

Key Dates: Refer to the Canvas calendar for the most up-to-date schedule of speakers, student presentation assignments, and deadlines for reflection/response submissions. Any changes to the schedule will be announced in class and updated on Canvas. Please refer to the [university academic calendar](#) for key dates relevant to our campus.



January 8, 2026

Dr. Mark DeHart
Associate Professor
Director, Nuclear Science and Engineering Graduate Program
Onstead College of Science and Engineering
(325) 674-2066

Re: Review of Nuclear Science and Engineering Graduate Seminar (NSE 610)

Dear Dr. DeHart,

Thank you for submitting Nuclear Science and Engineering Graduate Seminar (NSE 610) 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 members of the council, 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 be of any help in the design and facilitation of this course.

Sincerely,

A handwritten signature in black ink that reads "Amy Boone".

Amy Boone M.Ed.,
Teaching and Learning Specialist, Adams Center

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

M E M O R A N D U M

DATE: January 28, 2026
TO: Dr. Mark DeHart
FROM: Mark McCallon, Associate Dean for Library Services
RE: Course Application for NSE 610 - Nuclear Science & Engineering
Graduate Seminar

After reviewing the course application and syllabus, the library can support the proposed course. Please contact Mark McCallon (mccallonm@acu.edu), Librarian Liaison to the Department of Engineering and Physics, if you will require additional library resources in the future to support the course. Thank you for letting us review the course application and syllabus.