



September 26, 2025

Dr. Kevin Sightler
Substantive Change Office
SACS Commission on Colleges
1866 Southern Lane
Decatur, GA 30033

Re: New Program Approval – Undergraduate Certificate in Nuclear Deterrence

Dear Kevin,

The University of Tennessee, Knoxville's faculty in the College of Emerging and Collaborative Studies plan to offer a 12-credit hour undergraduate certificate in Nuclear Deterrence program beginning January 20, 2026.

The undergraduate certificate in Nuclear Deterrence will be available as an in-person "add-on" credential to students already enrolled and pursuing a degree at the University of Tennessee, Knoxville, or as a "stand-alone" credential for students enrolled elsewhere or who have already completed a baccalaureate program elsewhere.

This new certificate program will feature more than 50% new coursework and current faculty members, along with two to-be-hired faculty members, will teach in the program. Learning resources are more than sufficient to support students in the program, and the institution currently has sufficient facilities and library and learning resources to serve students.

Should you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Heather Hartman
SACSCOC Liaison

Cc: Donde Plowman, Chancellor
John Zomchick, Provost and Senior Vice Chancellor
Beth Avery Foster, Vice Provost for Academic Affairs
Ozlem Kilic, Dean, College of Emerging and Collaborative Studies

Office of Institutional Effectiveness
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1. Provide Common Content A – Background and Context, relative to the proposed change.

1. A list of programs offered by the institution (excerpt from the catalog or a printout of a webpage is acceptable).

The University of Tennessee, Knoxville (UT Knoxville) is authorized to offer undergraduate, masters, education specialist, and doctoral degrees. The College of Emerging and Collaborative Studies (CECS) currently offers:

- Bachelor of Science in Applied Artificial Intelligence
- Bachelor of Science in Applied Cybersecurity
- Bachelor of Science in Data Science
- Bachelor of Science in Innovative Transdisciplinary Studies
- Undergraduate certificate programs in:
 - Applied Artificial Intelligence
 - Applied Computing
 - Applied Cybersecurity
 - Artificial Intelligence and Medicine
 - Artificial Intelligence Integration in Music
 - Bioinformatics
 - Data Science
 - Data Science and Medicine
 - Game Craft
 - Human-Intelligent Systems Interaction
 - Literacy on Emerging Topics
 - Professional Advancement Through Hands-On Learning
 - Sport Analytics
 - Sustainable Development
- Graduate certificate programs in:
 - Applied Artificial Intelligence
 - Applied Cybersecurity
 - Data Science
 - Human-Intelligent Systems Interaction

The catalog excerpt for programs offered by CECS can be found in Appendix A.

2. Abstract (one page maximum)

a. Briefly describe the proposed change to include the intended implementation date.

The proposed change is to add a new undergraduate certificate in Nuclear Deterrence. This certificate will require 12 credit hours of coursework and will be available as an “add-on” credential to those already enrolled and pursuing a degree at the University of Tennessee, Knoxville, or as a “stand-alone” credential to those who are enrolled elsewhere or who have already completed a bachelor’s degree at another institution.

b. Provide projected number of students, if applicable.

The undergraduate certificate in Nuclear Deterrence is anticipated to serve 10-15 students per academic year.

c. Indicate the projected life of the change, as applicable: one-time/limited duration or ongoing).

The undergraduate certificate in Nuclear Deterrence will be an ongoing program that will continue to be offered in subsequent years. The program will be offered starting Spring 2026, with courses offered every fall and spring semester.

d. Describe the primary target audience or market.

The undergraduate certificate in Nuclear Deterrence is ideal for students pursuing careers in international relations, national defense and security, military service, or technology fields related to defense and strategic policy. The target market includes UT Knoxville undergraduate students, including CECS majors, and some community members.

e. Describe the strengths of the institution to undertake the change.

The College of Emerging and Collaborative Studies (CECS) brings together campus expertise to develop cutting-edge curriculum and provide learners from all colleges with access to emerging technology and in-demand skills, serving as a hub for collaboration.

CECS works closely with industry partners from a variety of sectors to provide all learners with real-world, hands-on learning experiences through internships, capstone projects, and research opportunities. By combining classroom expertise with experiential learning, CECS equips students with the practical skills, industry knowledge, and professional networks necessary to meet the evolving demands of the modern workforce.

3. Describe how the need for the change was determined and how the change was approved by the institution.

The undergraduate certificate in Nuclear Deterrence aligns with the state of Tennessee's strategic emphasis on strengthening its nuclear sector workforce and enhancing national security capabilities. Tennessee hosts over 230 nuclear companies, underscoring its significant role in the nuclear industry. The state has identified opportunities to bolster incentives to attract additional supply chain assets, aiming to reinforce its leadership in nuclear energy. The proposed undergraduate certificate in Nuclear Deterrence is designed to cultivate a new generation of leaders who are well-versed in nuclear security policies and strategies. This program aims to equip students with the knowledge and skills essential for roles in national security, policy development, and strategic defense sectors. By offering this certificate, CECS responds proactively to the increasing demand for professionals skilled in nuclear deterrence and security, aiming to bridge existing workforce gaps and contribute to state and national security objectives.

The proposed certificate program was approved following CECS processes for curriculum development, which includes convening an intercollegiate curriculum committee of faculty experts from across campus. The committee discussed, developed, and voted on the program name, content, courses, and learning objectives. Once the committee approved the certificate, CECS followed existing curricular procedures, including review and approval by the faculty and administrators at CECS and submission to the institution’s Undergraduate Curriculum Committee, Undergraduate Council, and Faculty Senate for review and approval.

Undergraduate certificate programs do not require approval of an institutional governing board. The undergraduate certificate in Nuclear Deterrence was approved following the institution’s curricular procedures. Meeting minutes from the Undergraduate Curriculum Committee, Undergraduate Council, and Faculty Senate reflecting final internal approval are provided in Appendix B.

4. Describe how the change is consistent with the mission and goals of the institution.

The institution’s mission is “We are a diverse community with a shared commitment to discovery, creativity, learning, and engagement. At UT Knoxville we:

- **Empower** learners of all ages and backgrounds to achieve their dreams through accessible and affordable education and state-of-the-art research training opportunities.
- **Advance** the prosperity, well-being, and vitality of communities across Tennessee and around the world through our research, teaching, service, and engagement.
- **Commit** to excellence, equity, and inclusion within the university, across the state, and in all our global activities.”

The undergraduate certificate in Nuclear Deterrence allows UT Knoxville to empower learners through state-of-the-art research, training opportunities, and industry partnerships. It is anticipated that the availability of this certificate will also lead to increased accessibility in the field of nuclear deterrence and allied professions.

5. Provide documentation of faculty involvement in the planning and approval of the change.

Planning for the undergraduate certificate in Nuclear Deterrence involved interdisciplinary faculty from the College of Arts and Sciences, the College of Emerging and Collaborative Studies, the College of Communication and Information, and the Tickle College of Engineering. Committee members met three times between September 2024 and November 2024 to design the program. Members of the planning committee are included in the table below.

Name	College
Howard Hall	Tickle College of Engineering
Catherine Luther	College of Communication and Information
Brandon Prins	College of Arts and Sciences
Vandana Singh	Emerging and Collaborative Studies

Elis Villasi	Baker School in Fall 2024 and CECS since Spring 2025
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Documentation of faculty involvement in program planning can be found in Appendix C.

6. Provide evidence of legal authority for the change if approval is required by the governing board or the state.

Approval by the Tennessee Higher Education Commission (THEC) is not required for certificate programs. THEC requires a notification for certificates to be sent by the Chief Academic Office (i.e., Provost). The notification form for the undergraduate certificate in Nuclear Deterrence was submitted April 24, 2025 (Appendix D).

2. Provide the curriculum for the program.

Undergraduate students in the Nuclear Deterrence certificate program will gain a deep understanding of deterrence concepts and theory, strategy and doctrine, technologies, insights into international relations and conflict frameworks, and leadership development. Upon completion of this certificate, students will be qualified for junior positions in the federal government, military, national laboratories, think tanks, and international institutions specializing in defense and security.

Required course (3 credits):

- DETR 201 Foundations of Nuclear Deterrence | 3 credits

Select one course (3 credits):

- POLS 265 Introduction to the International Relations | 3 credits
- POLS 472 Conflict Processes | 3 credits

Select two of the following courses (6 credits):

Technology Focus

- CYBR 302 Cybersecurity Risk Management | 3 credits
- CYBR 465 Cybersecurity for Network-Controlled Systems | 3 credits
- DETR 303 Nuclear Deterrence and Disrupting Technologies | 3 credits
- NE 301 Foundations of Radiation Protection | 3 credits
- NE 404 Nuclear Fuel Cycle | 3 credits
- NE 430 Nuclear Security Science and Analysis | 3 credits
- NE 431 Global Security Culture | 3 credits

Politics/Policy Focus

- HBS 456 Introduction to Nuclear Policy and Deterrence | 3 credits
- POLS 371 Terrorism and Political Violence | 3 credits
- POLS 465 Nuclear Politics of the Middle East | 3 credits
- POLS 470 International Law | 3 credits

Leadership Focus

- CMST 449 Political Persuasion | 3 credits

- HALS 207 Foundations of Leadership I | 3 credits
- HALS 208 Foundations of Leadership II | 3 credits
- HALS 308 Conflict Resolution | 3 credits
- POLS 473 Negotiation, Bargaining, and Diplomacy | 3 credits
- PBRL 430 Crisis Communication | 3 credits

3. Provide a projected schedule of course offerings for the program.

The projected schedule of course offerings for the undergraduate certificate in Nuclear Deterrence is as follows:

- Fall 2025 (and every subsequent fall semester):

CMST 449	NE 301	POLS 465
DETR 201	NE 404	POLS 470
HALS 207	NE 430	POLS 472
HALS 208	POLS 265	
- Spring 2026 (and every subsequent spring semester):

CYBR 302	HBS 456	POLS 470
DETR 303	NE 431	POLS 472
HALS 208	POLS 265	
HALS 308	POLS 371	
- Summer 2026 (and every subsequent spring semester): POLS 470
- Fall 2026 (and every subsequent fall semester, in addition to those listed above in Fall 2025): DETR 303
- Spring 2027 (and every subsequent spring semester, in addition to those listed in above in Spring 2026): CYBR 465, PBRL 430, POLS 473

4. Provide program-specific goals (objectives) and specific student learning outcomes for the program.

Students in the proposed certificate program will gain a deep understanding of deterrence concepts and theory, strategy and doctrine, technologies, insights into international relations and conflict frameworks, and leadership development. Upon completion of this certificate, students will be qualified for junior positions in the federal government and military, national laboratories, think tanks, and international institutions specializing in defense and security. Learning outcomes for the undergraduate certificate in Nuclear Deterrence program are that students will:

- Understand the historical and theoretical foundations underlying nuclear deterrence.
- Evaluate strategic deterrence concepts and mechanisms.
- Analyze how emerging technologies are reshaping the landscape of nuclear deterrence.

- Explore contemporary challenges to nuclear deterrence in a changing geopolitical landscape.
- Assess the causes and consequences of violent political conflict.
- Examine the ethical considerations and risks associated with nuclear weapons.
- Identify and apply leadership and communication frameworks to crisis scenarios.

5. Describe how the student learning outcomes for the program will be assessed.

The table below illustrates the assessment plan for the undergraduate certificate in Nuclear Deterrence program. Assignments from select courses will be assessed using rubrics developed by faculty members.

Program SLO	Course where SLO assessed	Assessment method
Understand the historical and theoretical foundations underlying nuclear deterrence.	DETR 201	Assignments, quizzes
Evaluate strategic deterrence concepts and mechanisms.	DETR 201	Assignments, quizzes
Analyze how emerging technologies are reshaping the landscape of nuclear deterrence.	DETR 303	Assignments, quizzes, final project
Explore contemporary challenges to nuclear deterrence in a changing geopolitical landscape.	DETR 201	Assignments, quizzes
Assess the causes and consequences of violent political conflict.	DETR 201	Assignments, quizzes
Examine the ethical considerations and risks associated with nuclear weapons.	DETR 201	Assignments, quizzes, final project
Identify and apply leadership and communication frameworks to crisis scenarios.	DETR 201, DETR 303	Assignments, quizzes

6. Provide course descriptions for all courses in the proposed program. Do not provide syllabi or catalogs (though course description excerpts from a catalog are acceptable).

CMST 449 Political Persuasion

(3 Credit Hours)

Study of the communication processes utilized by political candidates, office holders, and social movement organizers. *Prerequisite: CMST 342. Registration Restriction(s): Communication studies majors/minors or consent of instructor.*

CYBR 302 Cybersecurity Risk Management

(3 Credit Hours)

This course focuses on the principles and practices of cybersecurity risk management. Students will learn to identify, assess, and mitigate cybersecurity risks within an organizational context. Topics include risk assessment methodologies, risk treatment strategies, regulatory compliance, and the integration of risk management into the cybersecurity lifecycle.

CYBR 465 Cybersecurity for Network-Controlled Systems

(3 Credit Hours)

This course provides an in-depth examination of the cybersecurity challenges and strategies for network-controlled systems, including industrial control systems (ICS), Supervisory Control and Data Acquisition (SCADA), and other critical infrastructure. Students will explore security risks, vulnerabilities, and best practices for safeguarding network-controlled systems from cyber threats.

DETR 201 Foundations of Nuclear Deterrence

(3 Credit Hours)

This course explores the origins, evolution, and key concepts in nuclear deterrence, while examining how it has shaped global security dynamics from 1945 to today's nuclear multipolarity. Through analysis of contemporary challenges, students will gain a nuanced understanding of the strategic and psychological frameworks underpinning nuclear deterrence and its influence on international stability.

DETR 303 Nuclear Deterrence and Disruptive Technologies

(3 Credit Hours)

This course explores the impact of emerging and disruptive technologies such as cyber warfare, AI, hypersonic missiles, and autonomous systems on nuclear strategy and global stability, examining risks and opportunities presented by these disruptive technologies. It provides students with a holistic understanding of how nations are adapting their nuclear policies to manage technological uncertainties, preparing them to contribute to future policy debates on nuclear deterrence.

HALS 207 Foundations of Leadership I

(1 Credit Hour)

Foundations of Leadership is a comprehensive course that provides students with a strong foundation in leadership principles and practices. Through engaging lectures, interactive workshops, thought-provoking guest speakers, and real-world case studies, students will gain insights into the fundamental aspects of effective leadership. Topics covered include understanding leadership theories, identifying and nurturing leadership qualities, developing emotional intelligence, mastering communication, and decision-making skills, and fostering strengths-based teamwork and collaboration. The seminar will empower individuals to become more self-aware, adaptable, and influential leaders, equipped to navigate challenges and inspire positive change. *Grading Restriction: Letter grade only. Registration Restriction: Required of and limited to Haslam Leadership Scholars*

HALS 208 Foundations of Leadership II

(1 Credit Hour)

Building upon the knowledge acquired in Foundations of Leadership I, Foundations of Leadership II is an advanced course carefully curated to elevate students' leadership capabilities to new heights. This course explores intricate leadership concepts, including transformational leadership, strategic thinking, change management, and fostering innovation. Students will be able to hone their unique leadership styles, master the art of leading amidst ambiguity and uncertainty, and delve into effective strategies for achieving organizational growth and success. With a strong emphasis on ethical leadership, the course will also underscore the significance of cultivating a supportive and inclusive organizational culture. Engaging in practical exercises, enriched by guest speakers' perspectives, and immersing in role-playing scenarios, students will emerge from the seminar with a profound comprehension of leadership dynamics and the unwavering confidence to lead with excellence in diverse and challenging environments. *Grading Restriction: Letter grade only. Registration Restriction: Required of and limited to Haslam Leadership Scholars*

HALS 308 Conflict Resolution

(1 Credit Hour)

Proactive engagement and leadership strategies. Communication strategies to manage crisis. Adaptive leadership framework. *Grading Restriction: Letter grade only. Registration Restriction: Required of and limited to Haslam Leadership Scholars*

HBS 456 Nuclear Policy and Deterrence

(3 Credit Hours)

Deterrence strategy, alliances and nuclear umbrellas, nonproliferation, international regime of nonproliferation, safeguards, case studies.

NE 301 Foundations of Radiation Protection

(3 Credit Hours)

Radiation quantities, limits and risk assessment, external and internal dosimetry, biological effects of radiation, radiation detectors, radioactive materials management, radiation interactions and decay, including a few selected hands-on exercises. *Credit Restriction: May not be applied toward the Nuclear Engineering major. Comment(s): For TCE students not majoring in Nuclear Engineering. Registration Restriction(s): Restricted to TCE students NOT majoring in nuclear engineering. Minimum student level - junior*

NE 404 Nuclear Fuel Cycle

(3 Credit Hours)

Covers all relevant components of the commercial nuclear fuel cycle, including methods for mining and milling, physics of uranium enrichment, fuel fabrication, in-core fuel management strategies, reactor physics, spent fuel storage, reprocessing, and disposal of high-level radioactive wastes. Additional topics include decommissioning of nuclear facilities and the economics of electric power production as they apply to nuclear energy systems. Discussions of relevant issues in nuclear material accountancy and international safeguards for fuel cycle facilities. *Registration Restrictions: Minimum student level - junior*

NE 430 Nuclear Security Science and Analysis

(3 Credit Hours)

Understanding nuclear threats and the evolution of nuclear threats to present day. Issues and strategies in detecting nuclear threats. Issues and approaches for nuclear security concerns, both state-level (e.g., nonproliferation and deterrence) and asymmetric concerns (e.g., nuclear smuggling and nuclear terrorism). Exercises in applied nuclear security scenarios. *Credit Restriction: Students cannot receive credit for both NE 430 and NE 530 (see graduate catalog for course description).* *Registration Restriction(s): Junior Standing*

NE 431 Global Security Culture

(3 Credit Hours)

Principles and best practices in nuclear security, nuclear safety, and nuclear materials safeguards (“3S”) culture with an emphasis on developing and expanding nuclear power-producing states. Introduction to relevant international conventions and agreements such as the Nonproliferation Treaty, the role of the International Atomic Energy Agency, and the key milestones for nations seeking to develop a peaceful nuclear power program. *Credit Restriction: Students cannot receive credit for both NE 431 and NE 531 (see graduate catalog for course description).* *Registration Restriction(s): Junior standing*

PBRL 430 Crisis Communication

(3 Credit Hours)

Emphasis on practical and theoretical applications to preparing for and engaging in crisis communication and management, including risk communication and issues management. *Credit Restriction: Students cannot receive credit for both PBRL 430 and PBRL 530. (RE)* *Prerequisite(s): Junior or senior standing.*

POLS 265 Introduction to International Relations

(3 Credit Hours)

Resource availability, international economics, international security and peace (imperialism, war, diplomacy, the balance of power, international law, and international organization). *Satisfies Volunteer Core Requirement: (SS)*

POLS 371 Terrorism and Political Violence

(3 Credit Hours)

This course focuses on the causes and consequences of terrorism and political violence. Students will be introduced to theoretical and empirical research on violent political conflict and the role of non-state actors in our world today. Topics will vary, but may include: trends in armed conflict, underlying causes of terrorism and political violence, characteristics of violent non-state actors, strategies of violent non-state actors, the process of radicalization, and efforts to counter violent non-state actors. *Grading Restriction: Letter grade only.*

POLS 465 Nuclear Politics of the Middle East: Conflict, Energy, and the Environment
(3 Credit Hours)

Examines conflict and change in the contemporary nuclear politics of the Middle East. Topics include: the spread of nuclear weapons, nuclear nonproliferation treaties, illicit/secret nuclear programs, nuclear energy, nuclear security and inspections, and nuclear energy's relationship with solar, wind, and oil energy. *Grading Restriction: Letter grade only.*

POLS 470 International Law
(3 Credit Hours)

Nature and development of international law and compliance with it. Particular attention to function of international law in the context of international conflict. *Satisfies Volunteer Core Requirement: (GCI)*

POLS 472 Conflict Processes
(3 Credit Hours)

Analysis and exploration of the causes and consequences of violent political conflict. *Satisfies Volunteer Core Requirement: (WC) (RE) Prerequisite(s): ENGL 102, ENGL 112, ENGL 132, or ENGL 298.*

POLS 473 Negotiation, Bargaining, and Diplomacy
(3 Credit Hours)

Diplomacy, negotiation, and foreign policy decision-making. Theories of diplomacy and negotiation are applied in a simulation focusing on issues from international crime and global economic stability to world health and the environment. *Satisfies Volunteer Core Requirement: (SS)*

7. Describe admissions and graduation requirements for the program.

Students seeking admission to the undergraduate certificate in Nuclear Deterrence program must meet the admissions standards established by the Undergraduate Council (Appendix E). Students may pursue this undergraduate certificate on a full-time or part-time basis. They must earn all hours of this program at UT Knoxville. Students must complete the required courses with a 2.0 GPA or higher for the Nuclear Deterrence undergraduate certificate program.

8. Provide the planned method(s) of delivery, as defined in policy, of the program.

The undergraduate certificate in Nuclear Deterrence program will be offered in person.

9. Provide the planned location(s) at which the program will be delivered, i.e., on-campus and/or at specific off-campus instructional site(s). (Providing this information does not replace submitting a notification or prospectus for approval, if necessary, of an off-campus instructional site as required by policy.)

The proposed program will be offered at the Knoxville main campus location.

10. Demonstrate compliance with Standard 10.7 (policies for awarding credit) of the Principles of Accreditation.

For classes that are taught in-person and online in a traditional lecture-based format over the course of a semester with 14 weeks of instruction, one credit represents 50 minutes per week of direct faculty instruction in a face-to-face classroom setting and a minimum of 100 minutes per week, outside the classroom setting, during which a student engages actively with the course content. The proposed undergraduate certificate in Nuclear Deterrence program consists of 12 credit hours delivered through four 3-credit courses. Each class will provide at least 700 lecture hours of instruction per credit hour, in accord with the institution's credit hour definition.

11. Describe administrative oversight to ensure the quality of the program.

The Academic Operations team, including Dr. Elis Vllasi (Director of Academic Operations), Laura Hardy (Senior Academic Program Coordinator), and Gillian Hunt (Academic Program Coordinator), will monitor program data and gather relevant information for program assessment.

Dr. Eric Lukosi, Assistant Dean for Curriculum Strategic Initiatives, will work with program faculty and the Academic Operations and Student Affairs teams to monitor progress, analyzing program data and both instructor and student feedback to identify opportunities for continued program growth and improvement.

Dr. Lukosi reports to Dr. Ozlem Kilic, Vice Provost and Founding Dean of the College of Emerging and Collaborative Studies (CECS). She served as a director and department head in the Tickle College of Engineering prior to her service in the College of Emerging and Collaborative Studies.

12. For a program offered in compressed time frames, describe the methodology for determining that levels of knowledge and competencies comparable to those required in the traditional formats have been achieved.

N/A as the undergraduate certificate in Nuclear Deterrence is not offered in compressed time frame.

13. Provide Common Content B – Faculty Qualifications, relative to the proposed change.

1. Provide a completed Faculty Roster Form to include faculty members scheduled to teach in the proposed substantive change (program, site, arrangement, etc.). Follow the Faculty Roster Form Instructions which require the institution to demonstrate the qualifications of each faculty member to teach the courses assigned (refer to Standard 6.2a (faculty qualifications) of the Principles of Accreditation). Use the standard Faculty Roster Form and instructions; do not create a new form or format:
 - a. Faculty Roster Form [DOCX]
 - b. Faculty Roster Form Instruction [PDF]
2. Include on the Faculty Roster Form all faculty members for the courses to be taught; do not include historical teaching assignments unless they are also to be taught in the proposed change.

- a. **For a program: list the faculty members for all courses in the curriculum; exclude general education courses, if applicable, unless the general education curriculum is the substantive change being submitted for review.**
 - b. **For an off-campus instructional site: list the faculty members for all courses to be taught at the site for the first 12 months of operation.**
- 3. **Do not submit faculty curricula vitae or transcripts.**
- 4. **Referring to Standard 6.2a (faculty qualifications):**
 - a. **For a program: demonstrate the institution has at least one faculty member qualified in the discipline to develop the curriculum and/or teach in the program.**
 - b. **For a site: demonstrate the institution has at least one faculty member qualified in the discipline to teach at the site.**

The Faculty Roster Form for the undergraduate certificate in Nuclear Deterrence, listing faculty members who will be teaching the courses listed as part of the program curriculum, can be found in Appendix F.

- 5. **Provide narrative with supporting evidence to demonstrate the number of full-time faculty members will be adequate to support the proposed change. In addition to at least one faculty member qualified in the discipline, include any to-be-hired faculty members, if applicable, on the Faculty Roster Form (e.g., “To-be-hired #1,” “To-be-hired #2,” etc.) with the expected qualifications for teaching the courses assigned. Describe the impact on faculty workload of the proposed change.**

All but one faculty member teaching in the proposed certificate program have earned terminal degrees in a related field of study. All faculty teaching courses in the program have demonstrable expertise for the instruction of course content, and have been appointed by the institution as faculty with status as a tenure-track professor, associate professor, assistant professor, or non-tenure track adjunct, lecturer, teaching assistant/associate professor, or graduate teaching assistant. Dr. Elis Vllasi, a CECS faculty member, will be teaching the CECS courses in the certificate program. Dr. Vllasi led the development of this program and is scheduled to teach DETR 201 in fall 2026. Two to-be-hired faculty members will also teach courses in the program. There will be no impact on any other faculty and their workloads.

- 6. **For a graduate program,**
 - a. **demonstrate scholarship and research capability of faculty members teaching in the program and**
 - b. **if applicable, document faculty experience in directing student research or creative work (always applicable for doctoral programs).**

N/A as this is not a graduate program.

14. Provide Common Content C – Resource, relative to the proposed change.

Library and Learning/Information Resources

- 1. List and describe discipline-specific learning resources to support a new program. Do not list all library resources; include only those related to the proposed change. If electronic databases are listed, describe the discipline-specific suites of resources rather than the name only of the database or the consortium through which it is accessed (Such as Galileo, Louis, TexShare, Viva, etc.).**

No new library resources will be needed to serve the students in the proposed undergraduate certificate in Nuclear Deterrence program. UT Libraries offers students a broad collection of resources that support learning and course activities. Databases available to students include ICPSR, PAIS index, and Worldwide Political Science Abstracts.

- 2. Document discipline-specific refereed journals and primary source materials. This is particularly important for graduate programs and especially important for doctoral programs.**

Students are able to utilize OneSearch to search journals by category on the UT Libraries website. Multiple journals are available for students including *International Security* and *The American Journal of Political Science*. Students may also utilize resource sharing to borrow materials not available at UT Libraries.

- 3. Describe how students enrolled in a new program, at an off-campus instructional site, or in a distance education program can access discipline-specific library and learning/information resources.**

The undergraduate certificate in Nuclear Deterrence will be offered in person and online. All library resources identified in previous responses will be available online to students enrolled in the proposed program with their valid UT Knoxville NetID and password.

- 4. Describe how students are made aware of library and learning/information resources available to them, how they can learn how to access the resources and are instructed in the use of online resources, as well as on-site library resources.**

Students are made aware of library and learning/information resources available to them via course syllabi and individual course orientation. Faculty often provide students with guidance regarding the existence of resources relevant for class projects and assignments and how to access and use those resources. As part of coursework, such information is commonly posted in the Canvas site of respective courses and is discussed in class (where hands-on training on the use of such resources is often provided). The UT Libraries hosts an extensive website, which serves to educate students regarding available resources and support services.

- 5. Describe resources to support students in access to and use of library and learning/information resources.**

As described above, students are provided access to library guides and a specialized librarian that can guide students on accessing library materials and information sources. Further, students have

access to UT Libraries digital databases and AskUsNow, where they can chat with a librarian or get information on how to otherwise connect with a librarian. They can also request materials through resource sharing.

Student Support Services

- 1. Describe specific programs, services, and activities which will support students enrolled in the new program and / or enrolled at a new off-campus site /additional location and / or enrolled in distance education programs. Do not list student support services which are not relevant to the specific change.**

Academic and student support activities, programs, and services at UT Knoxville are offered in both centralized and decentralized formats. Decentralized support varies and is provided at the college, department, and program level. Centralized support is provided by a variety of offices including the Divisions of Enrollment Management, Student Life, Access & Engagement, Athletics, Research, and the Office of the Provost.

Academic Advising

Each UT Knoxville college provides undergraduate academic advising services to assist students in navigating the educational and professional questions that arise during the course of their studies. Academic advising for students in this program will be provided by professional advisors at CECS.

The RISE Program

The Responsive Industry Support Ecosystem Program (RISE) matches industry and professionals with learners pursuing careers in emerging employment sectors such as Data Science, Artificial Intelligence, Cybersecurity, and Sustainability. RISE is comprised of four components: RISE Base Camp, RISE Climb, RISE Team, and RISE Summit, with RISE Base Camp serving as the cornerstone.

RISE Base Camp is open to all UT Knoxville students and introduces participants to industry professionals in the RISE Network who are in various stages of their careers, from early-career to seasoned professionals. Meetings are held every other week during the semester, inviting students to listen in as professionals discuss their career journeys. Students then have an opportunity to ask questions and network over dinner.

In RISE Climb, students develop a personalized professional growth and mentorship plan, flexibly explore other connections, and complete a series of professional development benchmarks by utilizing available resources within CECS and across campus. RISE Climb is open to any student enrolled in a CECS program.

Students who complete RISE Climb are eligible for RISE Team, a team mentorship with a relevant member of the RISE Network. This includes two 30-minute virtual mentorship sessions with a mentor and a small team of similarly interested learners per semester. RISE Team is open to any individual enrolled in a CECS program.

CECS majors who complete their RISE Team mentorship are eligible for individual recognition by the RISE Network. These individuals will present the outcome of their internship, research, service, co-op, or capstone experience during the CECS RISE Summit Industry Showcase.

Career Catalyst

Career Catalyst is a dynamic annual event that connects leaders from corporations, small businesses, start-ups, government agencies, and higher education to envision collaborative initiatives to create a high performing and talented workforce for emerging and future careers. The invitation-only event is led by the College of Emerging and Collaborative Studies.

Physical Resources

1. Describe the adequacy of physical facilities which will support the change.

Existing facilities will be used to implement the undergraduate certificate in Nuclear Deterrence program. The college's administrative and faculty offices are located on the first floor of the Philander P. Claxton Education building. Each faculty member has approximately 65 square feet of office space. Currently, CECS does not have any college/department-owned classroom space. Classrooms for the courses in this program will be assigned by the Registrar's Office and vary in square footage based on location.

2. Describe equipment which will be available for a new program or available at a new site.

No specialized equipment is necessary or employed as part of the undergraduate certificate in Nuclear Deterrence program.

3. Describe the impact that the proposed change will have on physical facilities and equipment for existing programs and services.

All physical facilities, equipment, and services that are needed for the undergraduate certificate in Nuclear Deterrence program are already in place.

Financial Resources

1. Describe in narrative the financial resources needed to initiate and provide on-going support of the proposed change.

For the first year of the proposed change (academic year 2025–2026), the launch of the undergraduate certificate in Nuclear Deterrence, a budget of \$1,950 has been established. This budget includes \$500 for communication and marketing materials, \$250 for recruitment efforts, \$700 for advising support, and \$500 for academic administration. There are no additional costs allocated for external institutions or organizations for contractual or support services, as the necessary services are already in place.

Projected financials for the program are favorable. Expenditures are projected to remain steady at \$3,100 annually over the first three years. Revenue is expected to be \$18,480 in Year 1, increasing to \$27,720 in Years 2 and 3, leading to a positive net revenue of \$15,380 in Year 1 and \$24,620 in each subsequent year. These figures assume 10 students taking two courses

annually, using a tuition rate of \$385 per credit hour with 80% of tuition revenue returning to CECS.

As a contingency, CECS plans to evaluate enrollments after three years. If the program does not meet enrollment expectations, the marketing strategy will be adjusted. Given that the program expenses are relatively modest compared to CECS’s overall budget, they can be absorbed if necessary. CECS will also conduct annual cost assessments and adjust expenditures as needed if costs per student exceed projections.

2. Provide a budget for the first year of the proposed change.

Expense	AY 2025-2026
Communication and Marketing Materials	\$500
Recruitment	\$250
Advising	\$700
Academic Administration	\$500
TOTAL	\$1,950

3. Include in the budget resources to be directed to institutions or organizations for contractual or support services for the proposed change.

N/A, as all support or contractual services are already in place for the undergraduate certificate in Nuclear Deterrence program.

4. Include projected revenues and expenditures and cash flow for the proposed change.

Each of the classes in the undergraduate certificate in Nuclear Deterrence program must be serviced due to their inclusion in undergraduate majors in CECS. Therefore, additional faculty effort has not been included. If the popularity of the certificate program increases to the point of warranting additional classes, it will, by definition, have a projected revenue that meets or exceeds the expenditure. CECS calculated the expenditures by projecting the first-year budget and assuming efficiencies rather than growing expenses. For revenue, CECS assumes that students will take two classes per year, on average. Some students may complete all certificate requirements in a year, and others may proceed more slowly. While CECS uses the greater number of students in the estimated enrollment range to estimate the costs, the smaller number of students in the range is used to estimate revenues.

	Year 1	Year 2	Year 3
Expenditures	\$3,100	\$3,100	\$3,100
Revenues	\$18,480	\$27,720	\$27,720
Net (R - E)	\$15,380	\$24,620	\$24,620

Note: Tuition is taken from the Fall 2025 rate of \$385 per credit hour with 80% of tuition returning to CECS. The figures above assume 10 students taking 2 classes per year.

5. Include a contingency plan should expected revenue does not materialize or should costs exceed estimates.

CECS will assess enrollments in the undergraduate certificate in Nuclear Deterrence program after three years of operation. If it fails to achieve expected enrollments, CECS will re-evaluate and adjust its marketing strategy. However, expenses for this program are a small part of the CECS budget and can be absorbed by the overall budget. CECS will assess costs annually. If at any point costs per student exceed expectations, spending will be modified, as appropriate.

15. Provide Common Content D – Institutional Evaluation and Assessment Processes, relative to the proposed change.

1. Provide a brief description of institutional assessment processes.

Student learning outcomes for the proposed program will be included in the annual program assessment process. Data are collected annually and analyzed by department faculty to be reported formally every three years. The analysis and reporting requirements are focused on seeking improvement in student learning.

Student assessment of all academic courses and instructors is accomplished through the use of end of course evaluations. Course evaluations address topics such as quality of instruction, adequacy of facilities, adequacy of library resources, technology, and faculty availability (outside of class time). The instrument used for these evaluations is the same for all locations and methods of delivery. Course evaluation results are also shared with the administration.

2. Describe how the institution will incorporate the proposed change into the institution-wide assessment infrastructure and processes.

The institution's annual program assessment of student learning outcomes is coordinated by the Department of Institutional Effectiveness, which works with program faculty to develop appropriate outcomes, assessment methods, and to interpret results for continued program improvement. The department conducts an annual meta-assessment review and prepares a summary report, which is shared with faculty and the administration.