SEC. ___. DEGREE GRANTING AUTHORITY FOR UNITED STATES ARMY ARMAMENT GRADUATE SCHOOL.

(a) IN GENERAL.—Chapter 401 of title 10, United States Code, is amended by adding at the end the following new section:

"§ 4322 Degree Granting Authority for United States Army Armament Graduate School

"(a) AUTHORITY.—Under regulations prescribed by the Secretary of the Army, the Chancellor of the United States Army Armament Graduate School may, upon the recommendation of the faculty and provost of the college, confer appropriate degrees upon graduates who meet the degree requirements.

"(b) LIMITATION.—A degree may not be conferred under this section unless—

(1) the Secretary of Education has recommended approval of the degree in accordance with the Federal Policy Governing Granting of Academic Degrees by Federal Agencies; and

(2) the United States Army Armament Graduate School is accredited by the appropriate civilian academic accrediting agency or organization to award the degree, as determined by the Secretary of Education.

"(c) CONGRESSIONAL NOTIFICATION REQUIREMENTS.—(1) When seeking to establish degree granting authority under this section, the Secretary of Defense shall submit to the Committees on Armed Services of the Senate and the House of Representatives—

"(A) a copy of the self-assessment questionnaire required by the Federal Policy Governing Granting of Academic Degree by Federal Agencies, at the time the

assessment is submitted to the Department of Education's National Advisory Committee on Institutional Quality and Integrity; and

"(B) the subsequent recommendations and rational of the Secretary of Education regarding the establishment of the degree granting authority.

"(2) Upon any modification or redesignation of existing degree granting authority, the Secretary of Defense shall submit to the Committees on Armed Services of the Senate and House of Representatives a report containing the rationale for the proposed modification or redesignation and any subsequent recommendation of the Secretary of Education on the proposed modification or redesignation.

"(3) The Secretary of Defense shall submit to the Committees on Armed Services of the Senate and House of Representatives a report containing an explanation of any action by the appropriate academic accrediting agency or organization not to accredit the United States Army Armament Graduate School to award any new or existing degree."

(b) CLERICAL AMENDMENT.—The table of sections at the beginning of such chapter is amended by adding at the end the following new item:

"4322. Degree granting authority for United States Army Armament Graduate School.".

Section-by-Section Analysis

This proposal would authorize the U.S. Army Armament Graduate School (AGS), at Picatinny Arsenal, NJ, to grant graduate degrees in Armament Engineering.

Degree-granting authority will validate the valuable graduate-level learning that AGS provides, attracting strong students and rewarding their educational efforts. Students who complete course-work and dissertation requirements of the graduate program become broadly trained in all core Armament Engineering fields, with deep expertise on a specific problem area within Armament Engineering. Educating the next generation of experts in armament engineering through AGS will fill identified gaps in succession planning, ensuring future capabilities in armament-related research and in the innovation and development of advanced effective armaments to meet America's future defense needs.

Federal authorization for this successful, academically rigorous, and pedagogically effective graduate program will enhance the education currently delivered by AGS by allowing students to receive actual degrees instead of completion certificates. It will also pave the way for AGS to obtain accreditation by the Middle States Council on Higher Education (MSCHE) – the Department of Education (DoEd) designated accreditation authority for the region. Federal authorization and regional accreditation will attract and retain the best and brightest students, ensuring a vital Armament Engineering capability and a strong future of Army expertise.

About 90% of all armament engineers are located at the U.S. Army Armament Research, Development and Engineering Center (ARDEC). Current employee demographics suggest that the Army will soon face a shortage of expert armament engineers. About 40% of the ARDEC workforce, including over 60% of the expert cadre, will become eligible for retirement within the next 10 years; we face the risk that the Army will lack a cadre of trained and experienced experts to take their place. The traditional process for training expert armament engineers, with expertise commensurate with those who are retiring, is a slow one.

Without serious effort to accelerate and improve the training the Army provides, the projected shortage cannot be averted. This proposal provides a mechanism for speeding the process of developing the particular expertise needed to maintain current ARDEC capabilities. Degree-granting authority would allow us to sustain a viable program unique in its academic rigor and subject matter focus from any existing science or engineering program in civilian institutions of higher learning.

The existing internal training and mentoring process, which takes young scientists and engineers and grooms them for high-level expert positions over the course of about 7-10 years, would only viable if paired with lucrative incentives to induce our existing experts to remain in government service beyond their intended retirement dates (at the highest income level of their careers). Such an expensive option would not promote any of the advantages of maintaining a viable Armament Graduate School and would cost the government more money. In addition, the 7-10 year process does not produce well-rounded armament engineers; initially it produces narrowly-trained engineers who, only after an extended time period, become more broadly experienced in the many technical areas of expertise encompassed by armament engineering.

To address these problems – the slow pace, high cost, and narrow expertise range of current training practices – the Armament Research, Engineering and Development Center (ARDEC) launched AGS four years ago. AGS takes talented Army civilian scientists, mathematicians, and engineers, instills in them an understanding of armament engineering-related materials from across the knowledge landscape, and culminates in a dissertation research project. The dissertation research requires using rigorous scientific methods, critical thinking, and an extensive familiarity with a specific body of literature and knowledge to create new knowledge and solve problems or remove barriers to engineering success. AGS produces broadly-trained armament engineering experts in about 3 years, and continues with added breadth and considerable depth of training and research until the employee obtains Ph.D.-level expertise in Armament Engineering at the end of 5 years. AGS has graduated classes in September 2015 and 2016; the graduating students met all the requirements of a Master of

Armament Engineering degree, but were presented certificates of completion because the AGS does not currently hold the authority to grant degrees.

Without authorization and accreditation, the AGS will not attract and retain the best students from the Army workforce, and eventually, due to declining enrollment, will not survive to accomplish its essential mission. Accreditation requires that the educational program first be authorized under Title 10 of the United States Code.

Budget Implications: Degree-granting authority will allow the AGS to continue operation and attract and retain more students without incurring additional costs or requiring the hiring of new personnel. In fact, authorizing AGS to grant graduate degrees is projected to result in improvements in the training of Army scientists and engineers. The resources reflected in the table below are funded within the FY 2019 President's Budget request.

RESOURCE REQUIREMENTS ($THOUSANDS)									
	FY19	**FY20**	**FY21**	**FY22**	**FY23**	**Appropriation From**	**Budget Activity**	**Dash 1 Line Item**	**Program Element**
Army	229	229	229	229	229	Research, Development, Test and Evaluation, Army	02	18	0602624A
Total	229	229	229	229	229				

Table 1: No new resources are required for AGS authorization. These funds are budgeted for in the ARDEC budget.

PERSONNEL AFFECTED (PERSONS)									
	FY19	**FY20**	**FY21**	**FY22**	**FY23**	**Appropriation From**	**Budget Activity**	**Dash 1 Line Item**	**Program Element**
Army	98†	118†	138†	158†	159†	Research, Development, Test and Evaluation, Army	02	17	0602624A
Total	98†	118†	138†	158†	159†				

Table 2: Personnel affected by AGS authorization do not require additional allocations of funds.
† Personnel are currently funded in the ARDEC operating budget. This is a reallocation of effort from our previous on-the-job-training model to a more formalized and efficient classroom training model.

Changes to Existing Law: This proposal would add a new section 4322 to chapter 401 of title 10, United States Code, as shown above.