

How Ukraine’s Naval Institute defies war

 openaccessgovernment.org/article/how-ukraines-naval-institute-defies-war/198015

Emily Warrender

September 10, 2025

Professor Denys Zavhorodnii of the Department of Naval Tactics at the Naval Institute in Odesa, looks at how Ukraine’s Naval Institute defies war to sustain leader development

The sound of resilience

On a July morning along the Black Sea coast, cadets at the Naval Institute of the National Defence University of Ukraine in Odesa (NDUU/NIO) practice repairing offshore unmanned systems as air raid sirens echo in the background. Outside, sandbags brace classroom windows. Inside, teachers instruct shipboard navigation and communications without pause. This striking contrast captures a powerful paradox: even as Ukraine remains a battleground, military education not only endures – it thrives, a case study in institutional resilience.

Threat	Adaptation mechanism	Outcome
Infrastructure damage	Mobile teaching	40 academic days lost in the first year of the war
Staff/cadet safety risks	Remote teaching networks	10% curriculum contained
Resource shortages	Allied equipment donations	Training capacity at 100% of pre-war levels

Table 1: NDUU/NIO Wartime Operations Framework

The architecture of continuity

Russia’s illegal Invasion of Ukraine in 2022 forced military academies worldwide to reevaluate their curricula. Amid this global reassessment, NIO has emerged as a leading example of wartime adaptation. Rather than scaling back or simplifying its leadership development programmes, NIO reinforced its pre-war pedagogical benchmarks. This resilience is grounded in three foundational pillars: proactive and successful reform of the training system, the preservation of peacetime training standards under martial law, and measurable improvements in the quality and effectiveness of officer training.

The institute’s journey, transitioning from Sevastopol (1937-2014) to Odesa following the annexation of Crimea by Russia, reflects a remarkable resoluteness. Since 2014, it has operated under its current designation as the Naval Institute in Odesa. Since 2022,

missile strikes have repeatedly targeted the city's maritime infrastructure. In response, NIO has implemented contingency protocols to sustain its operations, see Table 1.

Quality as armour

Conventional wisdom suggests that wartime conditions require rapid officer production. However, the National Defence University of Ukraine has implemented a different approach, emphasising quality over quantity. "Better five expertly trained officers than twenty inadequately prepared ones," remarked Navy Captain Pavlo Rud, Head of the Department of Tactics at NIO. Despite urgent personnel demands, the Institute maintains its annual intake near pre-war levels.

For bachelor's degree cadets, NIO can accommodate up to 75 students per year in the Support of Troops course and up to 180 in Arms and Military Equipment. Additionally, it allows for up to 50 cadets annually in the Automation, Computer-Integrated Technologies and Robotics course.

For master's degree candidates, the capacity is set at up to 90 applicants per year for Arms and Military Equipment. PhD applicants in the same specialisation are limited to three per year.

In the realm of professional military education, NIO can accept up to 20 applicants annually for command and staff courses at the tactical level, and up to 40 for other professional courses at that level. For retraining and advanced officer training, the capacity is up to 200 applicants per year across 19 different courses.

Reason for limited increase

The modest 20% increase in cadet intake, despite a growing demand for officers, is primarily because many initial officer positions have been filled through mobilisation. This underscores a strategic decision to meet personnel needs through mobilisation rather than a significant expansion of NDUU's direct cadet intake.

Notably, cadet attrition rates have dropped significantly, from historic highs of over 50% in pre-reform cohorts (2014-2016) to below 15% for post-2017 cohorts. This reduction is attributed to NIO's 2017 structural reform, which shifted from civilian to dedicated military specialties, allowing for independently designed, combat-focused curricula. Additionally, limiting graduate qualifications to naval sector employment improved alignment with Ukraine's defense personnel needs.

This four-year training process aligns with peacetime operations, covering three naval specialisations and culminating in a bachelor's degree in military studies and the rank of lieutenant. Established intake capacities prioritise the production of competent officers under challenging conditions. Although annual cadet numbers have increased by 20% since 2022, the focus on quality maintains high education and training standards, even during wartime.

Preparing for invasion before it came

The 2017 curricular overhaul, which shifted officer training from civilian maritime specialties to dedicated military tracks, was a visionary decision. By incorporating 30% more combat leadership modules before the Invasion, the Institute equipped cadets with essential skills beyond naval engineering, enabling them to make informed decisions in naval operations.

Notably, practical training at NIO has continued uninterrupted, with cadets engaging in a variety of exercises, including mine-countermeasure operations, diving missions, and submarine evacuation drills. They also participate in warfare workshops and wargaming aboard vessels from the Ukrainian Navy and NATO allies, fostering valuable exchanges and strengthening Ukraine's naval leadership pipeline.

The future as mission

Walking through NIO's corridors reveals a striking contrast between past and future. The hum of generators accompanies military lectures, while cadets debate surface warfare, helmets and bulletproof vests nearby. The planned 2025 expansion, already underway, signifies transformation rather than just growth, featuring specialised programmes in advanced naval technologies, particularly unmanned systems. New departments, such as Ship Handling, Naval Weapons, Coastal Missile and Artillery Armament, Radio-Technical Armament and Robotics, underscore a commitment to aligning education with the demands of modern naval warfare.

When asked how NIO defines victory, Commandant Navy Captain Maksym Kiriakidi states, "Every cadet who graduates without a single standard lowered embodies our success. That's how we counter Russian ambitions – with unwavering excellence." Within the academy's steadfast rhythm, one can hear NIO's enduring motto: "Tantum possumus, quantum scimus." We teach; therefore, we prevail.

Acknowledgements

Thanks to Jostein Mattingsdal (Norwegian Naval Academy) for his support.

Primary Contributor

Denys Zavhorodnii

Ukrainian Naval Forces Institute,

Creative Commons License

License: [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)

This work is licensed under [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/).

What does this mean?

Share - Copy and redistribute the material in any medium or format.

The licensor cannot revoke these freedoms as long as you follow the license terms.