NavCad Academic Lab Kit: FAQs

We recognize the importance of investing in the next generation of naval architects and marine engineers. There is no better time than right now to provide your students with an experience that will differentiate them amongst their peers. That's why we are committed to providing students with the most current industry tools before they begin their professional careers. If propeller design is also part of your curriculum, we also provide PropCad and PropElements Academic Lab Kits to suit your learning objectives.

Why should I consider using NavCad in my classroom?

NavCad is an ideal tool for student design projects due to the rapid computation time. Since semesters are short and student time is limited, a tool that can generate a resistance curve or propulsion analysis at the click of a button allows students to complete iterative design projects in a manageable time frame. Resource-heavy, students can refine their hull design and expand project scope beyond basic resistance predictions.

Do my students need to have a specific type of computer to run the software?

NavCad is a computationally efficient tool and can be run on almost any PC. This makes it ideal for labs and libraries in academic settings, maximizing student access to software. Students and groups can work on projects simultaneously, rather than waiting in line for machine time to run exhaustive simulations.

Do I need to use another tool in conjunction with NavCad for propulsion analysis?

NavCad allows instructors to expand the scope of design projects beyond resistance prediction without introducing additional software tools. NavCad allows students to make speed predictions, size engines and propellers, and even estimate fuel consumption and CO_2 emissions.

Is NavCad a widely used tool?

NavCad is used by naval architects around the world, and it benefits students to gain familiarity with tools that they may use outside of academia.

Does NavCad contain tools to assess uncertainty?

NavCad contains several tools to assess uncertainty in a calculation. While the reliability of some calculation methods are questionable, NavCad establishes context for results through features like the confidence plot and the method expert. By ensuring the use of an appropriate calculation method and comparing results to similar vessels in "best-case" scenarios, NavCad helps students develop good engineering skills.