

Abstract

The concept of the Coriolis effect is featured in different courses during the educational program of Nautical Sciences at Antwerp Maritime Academy. The goal of this thesis is to assemble all the different aspects of the Coriolis force in those different courses with the purpose of creating a better insight for students into the Coriolis effect.

The main part of the thesis describes the physical aspects of the Coriolis force and how it is acting on a vessel. To get a better view of the entire picture, three dimensional interactive Geogebra-models are developed. Those models are intended as an educational tool for both the students and the lecturer.

The second part of the thesis handles the role of the Coriolis force in meteorology and how the force impacts the weather.

Although the Coriolis force rather has an indirect influence for seafarers, it has one. A vessel will not need to compensate for the Coriolis force, but it will act as a force on the vessel. It can be very useful for students to get a good insight on how the Coriolis force works to get a better understanding of its interaction of the Coriolis force with other aspects of nautical science. This insight can be visualized by the Geogebra-models.