NAV - NAVAL NAVIGATION (NAV)

NAV 1104 Navigation I (3-1-4)
Presents the students with elementary theoretical knowledge of general navigation and chart work. Introduces the topics related to basic navigation terms with an emphasis on navigational charts and methods of fixing, tides and tidal streams theory, use of navigational aids and the uniform time system. Familiarizes with the use of navigation publications. Consolidates the knowledge about chart work to solve time distance problems.

NAV 2003 Navigation II (2-1-3)
The course aims at providing students with in-depth theoretical knowledge of Navigation. Upon completion of the course, the students are expected to be familiar with the marine navigation, passage planning, pilotage & bind pilotage, execution of anchoring and usage of various navigational aids. Comprehensive knowledge about chart work to solve time distance problems is also developed in the course.
Prerequisites: NAV 1104

NAV 2103 Navigation III (3-1-3)
Provides the students with in-depth knowledge in astro navigation theory for practical application at sea. Covers topics such as basic concepts, use of astro navigation related books and publications, prediction of rising and setting times of various heavenly bodies, calculation of gyro compass error and observed position by means of sight reduction of celestial bodies.
Prerequisites: NAV 2003, NAV 1104

NAV 2203 Rule of the Road (RoR) (3-1-3)
Describes navigation rules to be followed by vessels at sea primarily to undertake safe conduct of various types of vessels and to prevent collisions under various scenarios and operating conditions. Introduces basic navigation related definitions. Demonstrate understanding of the conduct of vessels in restricted visibility. Employs meanings and description of various lights and shapes displayed by various types of vessels under specific conditions. Encompasses the sound signals used during restricted visibility and meanings along with their sound signalling equipment.

NAV 4002 OOW Consolidation and Bridge Management (0-4-2)
The course allows students to build upon previous courses to hone their pilotage skills as part of an integrated bridge team. Rotating to all the role and positions in both simulator and charthouse will expose students to every facets of the team operation enhancing understanding when in the leadership role.

NAV 4014 Ocean Navigation (2-4-4)
Students will be required to safely navigate a ship and correctly apply the collision avoidance regulations in open water conditions. This will include the application and evaluation of GPS as well as the ship"s log and echo sounder. Students will also need to apply steering and sailing rules applicable to open water navigation; including the analysis shipping situations through synthesizing electronic aids such as AIS and radar with visual observation.

NAV 4023 Coastal Navigation (2-2-3)
Students will be required to safely navigate a ship and correctly apply the collision avoidance regulations in coastal waters and in restricted visibility. This will include the use of terrestrial fixing and radar navigation techniques. Students will also need to respond to vessels and aircraft in distress.

NAV 4033 Restricted Waters Navigation (2-2-3)
Students will be required to safely navigate a ship and correctly apply the collision avoidance regulations in restricted waters. This includes the planning and execution of anchorages. This requires the synthesis and application of bridge equipment, visual observations and navigation theory. Student also need to evaluate anchorage positions and weather conditions.