

# Applied Programming I

**Project #1**

**Nov. 20, 2010**

**Ver. 2.0**

Prepare a VF computer project to implement the calculation the Load line of ships of type B, applying the recommendations specified by IMO. The computer program must have the following characteristics:

- Read from a separate text file all the required information (ship characteristics, superstructure dimensions, description of sheer curve, etc.).
- Write the intermediate (basic freeboard, corrections, etc.) and final result (Required freeboard and corresponding draft).
- Each rule must be implemented as a separate subroutine.
- The code must include enough comments that allows the developer future improvements.

The report must consist of a User's manual, which includes:

- Index of content.
- General description of the program.
- Definition of the terminology used.
- Description of the variables that need to be read (units).
- Description of the results.
- Example of the application of the program, which correspond to a ship which will be assigned by the instructor.

The grade will be assigned according to:

- Quality of written report. (40%)
- Quality of oral presentation (15 minutes plus 5 minutes for Q&A). (30%)
- Accuracy of results. (30%)

**If the program does not work properly, the Project will not be accepted.**

The head of the group must present an outline on how the work will be organized, and this document must be included as an Appendix of the report. Also do not forget to report the number of hours employed to complete each part of the project: programming, report, and presentation.

The first version of the report (*it is recommended not to present this version with colors*) is due on Monday Dec 6<sup>th</sup>, and the instructor will provide a first review the same day. The final version of the report must be submitted on Wednesday Dec. 8<sup>th</sup>, previous to the public dissertation.