



**a place of mind**  
THE UNIVERSITY OF BRITISH COLUMBIA

**COSC 520 – 001 [3-2-0]**  
***Analysis of Algorithms***  
**2022-2023 Winter Term 2**  
**Project First Milestone**

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**Project proposal (20% of your project grade):**

For one of your algorithms:

- Formulate the problem as an algorithmic problem, include the mathematical notations. For example, given an input array  $A$  of length  $n$ , the algorithm should output  $A$  in sorted order.
- Write pseudo-code.
- Analyze the algorithm you designed. Include the analysis of the algorithm.
- Provide proof of correctness and running time of your algorithm.
- Describe the unexpected Cases/Difficulties. If you encountered any issues for design and implementation of your work, include it here. Also, mention the solutions you have considered to alleviate the issue.
- Note that for some topics, you should think about the operations that should be done.

Use the template uploaded in the Term Project module on course home page on Canvas.

**Going beyond the maximum pages mentioned in the template has a 5% penalty.**