UNIVERSITY OF LINCOLN

# CMP3110M Parallel Computing, Assessment Item 1

| Learning Outcome | Criterion | Pass | 2:2 | 2:1 | 1st |
|---|---|---|---|---|---|
| [LO1] demonstrate practical skills in applying parallel algorithms for solving computational problems;<br>[LO3] analyse parallel architectures as a means to provide solutions to complex computational problems. | Code demonstration and result interpretation | A working software component demonstrated, providing basic statistical summaries of the weather data (min/max/avg/std. dev.) using integer temperature values. The memory transfer and kernel execution times are provided.<br><br>Coding style is readable.<br><br>The answers provided indicate a basic understanding of the employed parallel patterns. | A working software component demonstrated, providing basic statistical summaries and some attempt at optimising the code using integer temperature values. Performance of the program is provided.<br><br>Clear coding style with code comments.<br><br>The answers provided indicate a fair understanding of the employed parallel patterns. | A working software component demonstrated, providing basic statistical summaries with well optimised kernels using real temperature values. Performance of the program is clearly reported and interpreted.<br><br>Clear & well commented code.<br><br>The answers provided indicate a good understanding of the employed parallel patterns. | An excellent implementation featuring basic statistical summaries and median-based statistics on real temperature values. Optimisations based on local memory are considered. Program performance is clearly reported and interpreted in detail.<br><br>The code is optimised, efficient, well-structured and commented in detail.<br><br>The answers provided indicate a very good understanding of the employed parallel patterns. |
| **Weighting** | There is a single criterion for this assessment item. | | | | |