

## CSCE 313

### Lab 6

## Fixed-Point Real-Time Fractal Generation with Four Processors

**Due Date: 5/6**

### Design Requirements

Convert your solution for Lab 5 into fixed-point, eliminating all floating-point types and operations.

### Project Submission

In addition to the archived project directory, each group must submit a report that details their performance results for **four processors**, measured as:

1. average time (in seconds) to generate each frame over at least 4 frames,
2. average number of clock cycles to compute and paint each pixel over at least one frame,
3. number of cycles to compute one iteration of the polynomial evaluation loop, and
4. number of cycles per floating point operation performed in the polynomial evaluation loop.

For each of these, compare to the results from Lab 5 (for four processors).

The report should contain all implementation-specific details, such as:

- the maximum iteration count,
- the method for finding the zoom point,
- the color calculation function (make sure there is no overflow)