System Verification and Validation Plan Checklist

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- Follows writing checklist (full checklist provided in a separate document)
  - ☐ LaTeX points
  - ☐ Structure
  - ☐ Spelling, grammar, attention to detail
  - ☐ Avoid low information content phrases
  - ☐ Writing style
- Follows the template, all parts present
  - ☐ Table of contents
  - ☐ Pages are numbered
  - ☐ Revision history included for major revisions
  - ☐ Sections from template are all present
  - ☐ Symbolic constants are used rather than "magic" numbers. Symbolic constants are used to improve maintainability and to increase understandability
  - ☐ Specific values are provided for all symbolic constants
- Grammar, spelling, presentation
  - ☐ No spelling mistakes (use a spell checker!)

- ☐ No grammar mistakes (review, ask someone else to review (at least a few sections))
- ☐ Paragraphs are structured well (clear topic sentence, cohesive)
- ☐ Paragraphs are concise (not wordy)
- ☐ No Low Information Content (LIC) phrases (List of LIC phrases)
- ☐ All hyperlinks work
- ☐ Every figure has a caption
- ☐ Every table has a heading
- ☐ Symbolic names are used for quantities, rather than literal values

- LaTeX
  - ☐ Template comments do not show in the pdf version, either by removing them, or by turning them off.
  - ☐ References and labels are used so that maintenance is feasible

- Overall qualities of documentation
  - ☐ Test cases include SPECIFIC input
  - ☐ Test cases include EXPLICIT output
  - ☐ Description over specification, when appropriate
  - ☐ Plans for what to do with description data (performance, usability, etc). This may involve saying what plots will be generated.
  - ☐ Plans to quantify error for scalar values using relative error
  - ☐ Plans to quantify error for vector and matrix values using a norm of an error vector (matrix)
  - ☐ Plans are feasible (can be accomplished with resources available)
  - ☐ Plans are ambitious enough for an A+ effort
  - ☐ Survey questions for usability survey are in an Appendix (if appropriate)
  - ☐ Specific plans for task based inspection, if appropriate (not just saying inspection will be done, but details on how)

- ☐ Provided adequate detail on non-dynamic testing. Statements liks "We will perform a code walkthrough with our stakeholders" are accompanied by details, such as a checklist of items to go through during a walkthrough.
- ☐ Very careful use of random testing
- ☐ Specific programming language is listed
- ☐ Specific linter tool is listed (if appropriate)
- ☐ Specific coding standard is given
- ☐ Specific unit testing framework is given
- ☐ Investigation of code coverage measuring tools
- ☐ Specific plans for Continuous Integration (CI), or an explanation that CI is not being done and why not
- ☐ Specific performance measuring tools listed (like Valgrind), if appropriate
- ☐ If you are referencing an outside standard like the Web Content Accessibility Guidelines (WCAG), refer back to it when talking about it. Don't just say "perform WCAG checks to validate accessibility" – say what tests you are planning on performing. If they are provided by WCAG, reference the specific tests you'd like to use.
- ☐ Traceability between test cases and requirements is summarized (likely in a table). The traceability matrix shows a test case for each requirement, or a non-dynamic technique is used for that requirement.
- ☐

- Avenue rubric
  - ☐ More than 5 peer review issues created for another team
  - ☐ Should have enough redundancy in testing. Ideally there should be more than one approach for verification for each requirement.
  - ☐ Custom documents (CDs) should be clearly identified and should be feasible. The TA should have enough information to be able to provide feedback.

- ☐ A case should be made for why the CDs will improve the project, and thus prove that they are not an afterthought.