Problem Statement
Slope Stability Analysis

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Table 1: Revision History

Date	Developer(s)	Change
09/13/18	B. MacLachlan	Formatting updates, error fixes, and content updates related to changed scope of outputs

Slope stability analysis is the assessment of the safety of a slope. The Slope Stability Program (SSP) is intended to be an introductory educational tool for demonstration of slope stability issues, slope stability analysis software, and the process of assessing and designing stable slopes to students at an undergraduate university level. The stakeholders include students or anyone who designs excavated slopes or assesses the safety of natural or existing slopes. The SSP program should perform stability analysis of a slope under any and all of the following conditions:

- a slope composed of multiple homogeneous layers of soil each with individual properties and specified geometry under the influence of gravity,

- a water table interacting with the layers of the soil introducing a mix of dry and saturated soil conditions

Analysis will evaluate a stability metric, called a factor of safety, as an indicator of the stability of the slip surface under investigation. The critical slip surface with the lowest stability metric should be identified, and its factor of safety reported.

The program should run in Windows 10, Mac OS X 10.13, and Ubuntu 18.04 environments.