**Anita Knight**

**Final Project**

**Test Plan**

A combination of top down and bottom up testing was done. The following tests were done:

1. Testing of main window to ensure that all widgets were set up and displayed correctly.
2. Testing of validation of main window widgets: filing status is required, all numeric fields contain numeric data
3. CalcTax function – this was done bottom up. This is the most complex algorithm and therefore required an extensive list of test cases (42 in all). A list of test cases was created in Excel. The results of the Python module was compared to the Excel answer to ensure that they were equal or within +-2 due to rounding differences. The files used for this test were:

Calc tax for testing.py

testdatain.txt

testdataout.txt

1. Testing of individual functions for calculation of datapoint:
   1. CalcTotalIncome
   2. CalcAdjIncome
   3. CalcItemDed - see list of test cases in “Project test cases.xlsx
   4. CalcStandDed – see list of test cases in “Project test cases.xlsx”
   5. CalcTaxableIncome
2. Testing of display window widgets
3. Testing of ClearValues function

Results were compared to an online tax calculator: <https://us.icalculator.info/>

A sampling of test cases and results are found in the separate document:

Knight\_Anita\_Final\_Project\_screen shots.docx