In this assignment your groups will ghost-write a report for me to send to the family co-owners of an Inverness vacation house, documenting the improvised repair I made this past weekend during the torrential rains that broke the nearly nine-month dry spell. Your audience is Howard, Bartlett and Stephanie— all of them PhD scientists but none of them particularly handy when it comes to such repairs. Your goal is to write a short but efficient and well-documented report in which you describe the situation, give an account of the solution, and describe the tentative result, illustrating your report with annotated iPhone photographs calling out important details. You will need to look carefully at the notes below, AND supplement your knowledge with the benefit of a limited number of clarifying questions and answers from me during class time.

More than 10 inches of rain had fallen in a few days. Gutters and roof are approximately 12 years old, may have been poorly installed. Seepage between eroded composite shingles into space between roof (accessible from 3rd floor fire escape, where the photos were taken from) and the ceiling of the “Green” bedroom on the 2nd floor. On Saturday morning my wife noted small (2”) puddles on the floor of this bedroom, 2' out from wall so source likely was not windows. Close inspection of ceiling (10’ high) revealed seeping drips emerging between redwood bead-board seams over about a 24” length. No other signs of water incursion in that area of the ceiling. Area rug adjacent to dripline rolled up partway to avoid soaking.

Inspection from 3rd floor bedroom directly above, which has a dormer extension and a fire escape / balcony that abuts part of the roof, revealed a downspout draining a gutter collecting water from a 10’ x 10’ slightly angled roof; the gutter was clogged and overflowing but was cleared of debris, increasing flow through the downspout onto the roof and down to the main lower gutter. Corrosion of reddish flashing noted, along with incipient cracks in weathered composite shingles.

Tarping would not be adequate— the area is subject to high winds, and holes in the roof to secure any protection would probably create more leak problems. To direct runoff straight into lower gutter and to protect eroded area I improvised a sluice or channel using 9” flashing from a roll in the basement, notched using tinsnips and secured with screws. Wet floor in green room was toweled dry.

Rain lightened up slightly but continued through Sunday. No new puddles in afternoon. Subsequent inspections from ladder revealed no visible drips from seams in the ceiling beadboard. Not clear whether other areas of shingles are similarly compromised, or whether this quick fix actually solved the problem.

Please note that we will be developing content and thinking critically about possible problems and needed explanations in the coming weeks, with parts of our class discussion being devoted to what we can and cannot infer from what has been given here.