

**Jackson Sanders**

**Patrick Chai**

**Alexander Bockelman**

**Jose Carrillo**

**Wayne Ussery**

**Jackson Sanders**

1. Coming out of the Zachry building facing Spence St. and turn left on the sidewalk when you reach Ross St.
2. Continue down Ross St. until you reach Houston St. Turn left on that sidewalk and continue down that road (you will be walking between the Academic Plaza and Simpson Drill Field at one point).
3. Right before the intersection of Houston St. and Joe Routt Blvd., turn right and you have arrived.

**Patrick Chai**

1. Turn left onto Spence street from the Zachry Engineering complex
2. Turn right onto Ross street, and continue all the way down until military walk
3. Turn left onto military walk, and walk past the century tree and Sul Ross statue
4. The MSC will be right next to Rudder tower, the only tower in sight

**Alexander Bockelman**

1. Start at Zach 212
2. Take a right and go down the stairs
3. Exit the building via the southwest exit closest to Spence street
4. Take a left onto Spence street and continue for .2 miles
5. Turn right on sidewalk and continue for 160 feet.
6. Turn left at the Anthropology building and continue for .2 miles
7. Turn right on sidewalk and walk for 330 feet
8. Turn left onto Nagle street and continue for 620 feet.
9. Take a right onto Lubbock Street and then immediately take a slight left and walk 280 feet
10. Take a right onto Joe Routt Blvd and continue for .2 miles.
11. Destination is on your left.

**Jose Carrillo**

1. Exit Zach
2. Head towards Commons
3. When you reach Commons, turn right down road in front of Commons
4. Continue on road until you reach intersection where you must turn. Take a left, then immediately a right

5. Continue straight until MSC, on the right. It is just after the tall Rudder Tower.

### **Wayne Ussery**

1. Exit the Zachry Engineering Education Complex at the Southwest Exit.
  2. Turn left at Spence Street.
  3. Continue walking until you reach Ross Street.
  4. Turn right at Ross Street.
  5. Continue walking until you reach Houston Street.
  6. Turn left at Houston Street.
  7. Continue walking until you reach Lamar Street.
  8. Turn right at Lamar Street and the MSC is on your left.
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- a. Alex's since it includes directions on how to get out of the building as well as detailed instructions that include distances along the way.
  - b. The answers differ since they use different terms to reference distance and direction in addition to the variation of the use of landmarks. Another one of the biggest differences is the difficulties presented in each set of instructions. The ones that are vague seem easier to follow but may take more time while the more specific ones are somewhat difficult to follow yet may cut down travel distance.
  - c. They were similar since they all used chains of specific commands in order to direct a person from the Zach building to the MSC. Another recurring theme is the use of commonly known objects along the way.
  - d. 1) Patrick's or Jackson's directions would perhaps be most fitting for a traveler already fairly acquainted with campus. Most people comfortable with those directions will already know where things such as military walk and the century tree are, and will have no difficulty spotting them.  
2) All of these instructions are wheelchair accessible, given that most if not all buildings and streets have ramps. Unfortunately, they are not suited for an individual looking to jog, as all of these instructions are directly to the MSC, with no detours or scenic routes  
3) All these directions are pretty much the shortest possible route to the MSC. However, Patrick's directions lead travelers through military walk, one of the main attractions on the TAMU campus.
  - e. How do you get from Zachary 212 to the Memorial Student center? What landmarks are between Zachary 212 and the Memorial Student Center?

## Activity 2

1. Check the cylindrical specimens to make sure it's dimensions are 6x12 inch or 4x8 inch.
  2. Measure mass of cylindrical specimen.
  3. Cap cylinders with sulfur mortar at least two hours before the testing. Preferably one day beforehand.
  4. Neoprene pad caps can be used to test psi up to 12,000, neoprene caps can still be used, but only in conjunction with sulfur caps.
  5. Check cylinder to make sure it is not dried out before testing.
  6. The cylinder's diameter should be measured at mid height, at two points perpendicular to each other. If the two measurements differ by more than 2%, the cylinder should not be tested.
  7. Check whether the ends of the specimen are perpendicular to the cylinder's axis within .5 degrees.
  8. Make sure the cylinder is centered on the compression-testing machine and loaded to complete failure. Record the type of break and any other findings.
  9. Calculate the concrete's strength by dividing maximum load at failure by the average cross-sectional area.
  10. Following the test, the technician should record important data, such as the date the cylinders arrived at the lab, the test date, specimen identification, cylinder diameter, test age, maximum load applied, compressive strength, type of fracture, and any defects in the cylinder or caps. The mass of the caps should also be noted.
- Variable Names
    - cylinder\_diameter1: Cylindrical diameter
      - The diameter of the cylinder at point one
    - cylinder\_diameter2: Cylindrical diameter
      - The diameter of the cylinder at point two
    - compressive\_strength: Compressive strength
      - Failure load divided by the cross-sectional area resisting the load reported in units of pound-force per square inch (psi)
    - mass\_concrete: Mass of the concrete
      - The actual mass of the concrete
    - distance\_traveled: The distance traveled
      - The distance traveled by multiplying velocity times time