
CS3388 Midterm Exam outline 2016

Any printed material is allowed (e.g. books, notes, papers, etc).
No electronic material except a non-programmable calculator will
be allowed. NO phones or laptops!

This is a 1 hour 45 minute in class exam (MC105b) on Thursday
November 3rd, 2016 (2:30pm-4:15pm).

The syllabus is till Clipping (topic 7). This exam is worth
20% of the final grade.

There is no makeup for the midterm - if you miss it, your final
exam mark counts for all the grade. Yes, if you do better on the
final than the midterm, the final grade overrides the midterm
grade. Statistically only 25% of students do better on the final
than on the midterm so it is important to write the midterm.

- make sure that you know the following operations: matrix
  multiplication, vector dot & cross product, normalization,
  vector addition & subtraction, matrix addition & subtraction.

- there will be one question form Bresenham's line drawing.
  You should understand the details of the algorithm, & the
  slope issues.

- there will be quite a few questions on transformations,
  mostly on applying transformation matrices to points.
  Understanding the sequence of transformations will be needed.

- one question will be on the concept of gluLookAt() &
  glFrustum() function in openGL.

- one question will be on the concept of applying multiple
  transformations to a point/shape.

- one question will be on 4x4 modelview matrix, from openGL
  perspective.

- one question will be on Liang-Barsky line clipping. You
  should understand the details of the calculations.

- one question will be on modelview matrix from world to view
  (M_w2v)). Understanding the detailed calculations will be
  needed, especially the vectors and their directions.

- understanding surface normal calculation will be needed.