

UPDATED GENERAL INFORMATION — JANUARY 29, 2009

Further information on the topics in Section II.2 is in the files `betweenness.pdf`, `separation.pdf`, `betsepexercises.pdf`, and `betsepsolutions.pdf`, all of which are in the course directory.

Study hints for the first examination

Here are some suggestions for studying to take the first exam. Nothing from Section I.2 will be on the exam, and the main things to know from Section I.1 will be the perpendicular projection formula and the condition on vectors which is equivalent to the additivity of distances:

$$d(X, Y) = d(X, Z) + d(Z, Y)$$

In Sections I.3 and I.4, the main thing is to be able to work the basic sorts of examples in the homework and in Section I.5; computational problems involving barycentric coordinates are particularly important to understand. For Sections II.1 and II.2, it is important to know the basic incidence axioms and the basic axioms and definitions involving betweenness (including the definitions of segments and rays, both in terms of betweenness and in terms of vector algebra). Also, it is important to know how to work basic sorts of exercises as in the homework and notes, at least up to but not including Theorem II.9 and also including Example II.14. The assigned problems from Section II.1 and Exercises II.2.4 – II.2.6 and II.2.11 should also be understood.

There will be **NO** *formal* proofs to complete on the examination (although at least some problems might require a little reasoning that is on the edge of being abstract). Twenty percent will involve statements and understanding of basic definitions and results, and the remaining eighty per cent will be devoted to working out examples like those in the homework and the notes.