Geometric background material

Although point set topology is so fundamental to most of mathematics that it can be considered part of the foundations of mathematics just like set theory, the subject's origins are largely geometrical, and at many places some geometrical insight is extremely helpful (perhaps even indispensable).   The directory

http://math.ucr.edu/~res/math133/

discusses elementary geometry from a viewpoint of upper level undergraduate mathematics courses, and in particular the files

http://math.ucr.edu/~res/math133/geometrynotes01x.f13.pdf

http://math.ucr.edu/~res/math133/geometrynotes02x.f13.pdf

http://math.ucr.edu/~res/math133/geometrynotes03x.f13.pdf

http://math.ucr.edu/~res/math133/geometrynotes05x.f13.pdf

provide an organized overview of the documents in that directory.   The geometrical aspects of multivariable calculus are also relevant to most of the topics in this course, and material in the following directories may be helpful for reviewing the background related to these courses:

http://math.ucr.edu/~res/math10A/

http://math.ucr.edu/~res/math10B/