A university education should give specific knowledge in a more or less narrow field, and also what is called generic knowledge and skills of a general nature. This talk centers around the latter aspect. Through simple, but sometimes thought provoking, examples I will discuss techniques to be used when one encounters issues in science and technology that fall outside one’s immediate previous knowledge. Estimations, dimensional analysis, going to extremes, and the unexpected breakdown of models, are items to be covered in the talk.