In this talk we will demonstrate the potential of using the Mizar system and its library of formalized mathematics as an aid in constructing university-level maths courses. We will present various methodologies and tools used to carry out and evaluate such courses. Several examples of Mizar-based courses will be shown in more detail. In particular, we will describe the pros and cons of developing courses based on the current contents of the Mizar Mathematical Library versus building customized fragmentary local libraries. (Received September 21, 2010)