With the outbreak of the Second World War, many US mathematicians, scientists and engineers began research work for the war effort. Those at universities also participated in one of the largest government-subsidized educational programs in US history. The Engineering, Science and Management War Training Program, funded by the US Office of Education, operated on over 200 campuses nationwide. The program included opportunities for students to train in engineering or for current engineers to gain new skills. This talk will discuss the role of the mathematical sciences within this program, focusing on how the courses developed at New York University. (Received September 25, 2018)