The study assessed the perceptions of primary teacher training college students, tutors, primary school teachers as well as headteachers of primary schools about the primary teacher education curriculum in Kenya. Among the research questions addressed included the following: (1) What are the perceptions of students, tutors, teachers and headteachers about the objectives and content of the PTE curriculum? (2) Which perceptions do tutors, students, teachers and headteachers hold about the methods of teaching used? (3) What are the perceptions of students, tutors, teachers and headteachers about the various assessments? (4) What perceptions do headteachers have about how the PTE curriculum is improving the competence of teachers in teaching? (5) Is there a relationship between the various demographic variables and the respondents’ perceptions about the PTE curriculum? (6) Which factors are responsible for these perceptions? The study employed the survey design. The sampling procedures included simple random, stratified and purposive. The sample included 148 college tutors, 425 continuing second year students, 26 primary school teachers and 12 headteachers. The study found out that Education is a very relevant subject in PTTCs because it is a foundation course in teacher training. English is also very relevant because it is the medium of communication. Kiswahili is also viewed as a relevant subject because it brings about social cohesion and integration. Lecture and discussion methods are mainly used to teach in these colleges. The final session of teaching practice and the PTE examination are viewed as very relevant by all the respondents because the students have mastered both the content and the methodology in this course. According to the headteachers, teachers are not competent in teaching all subjects. This is because of specialization in second year which limits them in teaching. As ways of improving the PTE curriculum, the respondents gave suggestions such as increasing the duration of training, removing from the PTE syllabus subjects which are not examinable in primary schools and allowing students to take all subjects with no specialization. The study concluded that the PTE curriculum was effective in training primary school teachers. However, there is need to restructure the whole programme in order to improve it. Thus the Ministry of Education (MOE) needs to formulate a policy of training primary school teachers which is in harmony with the teaching and learning in primary schools.