Background Depression is a common cause of morbidity but prevalence levels among Kenyan university students are poorly understood. A better understanding of depression and its correlates is essential in planning for appropriate interventions in this population group. Method A random sample of 923 University of Nairobi students (525 male and 365 female) were interviewed using a questionnaire to record sociodemographic variables. Depressive symptoms were measured using Centre for Epidemiological Studies Short Depression Scale (CES – D 10). Results The mean age was 23 (s.d. 4.0). Using a cut-off point of 10, the overall prevalence of moderate depressive symptoms was 35.7% (33.5% males and 39.0% females) and severe depression was 5.6% (5.3% males and 5.1% female). Depressive illness was significantly more common among the first year students, those who were married; those who were economically disadvantaged and those living off campus. Other variables significantly related to higher depression levels included year of study, academic performance, religion and college attended. Logistic regression showed that those students who used tobacco, engaged in binge drinking and those who had an older age were more likely to be depressed. No difference was noted with respect to gender. Limitations This was a cross sectional study relying on self report of symptoms and could therefore be inaccurate. Although the study was conducted in the largest university in the country that admits students from diverse backgrounds in the country there could still be regional differences in other local universities. Conclusion Depression occurs in a significant number of students. Appropriate interventions should be set up in higher institutions of learning to detect and treat these disorders paying particular attention to those at risk.