This study was intended to evaluate ESP course design for Biology students whether the planning and the implementation of it match the theoretical requirements or not. The data were collected from the interview with three lecturers from Biology Department and six Biology students from Academic year 2007/2008 at State University of Medan and also documentary technique. From the data analysis it was found that the planning and the implementation of ESP course design for Biology students did not fulfill the whole requirements in designing an ESP course design because the lecturers as course designers used a skill-centered approach in interpreting the data which came from the needs analysis and reviewed the theoretical models of learning. They did not use a learning-centered approach which should be used in designing an ESP course. The writer also found that the right lecturer for ESP course must be a lecturer from the department itself because they master the knowledge deeply.