quantitative analysis for management essay sample



The dean of the Western College of Business must plan the school's course offerings for the fall semester. Student demands make it necessary to offer at least 30 undergraduate and 20 graduate courses in the term. Faculty contracts also dictate that at least 60 courses be offered in total. Each undergraduate course taught costs the college an average of \$2, 500 in faculty wages, and each graduate course costs \$3, 000. How many undergraduate and graduate courses should be taught in the fall so that total faculty salaries are kept to a minimum?

Answer:

There should be 40 undergraduate courses and 20 graduate courses to be taught in the fall so that total faculty salaries are kept to a minimum of \$160, 000.

Solution Let x = undergraduate course y = graduate course z = faculty salary Minimize z = 2,500x + 3,000ySubject to: x => 30 y=> 20x + y > 60