Due to increasing health care costs, hospitals are forced to reduce the number of beds at the wards. This can be achieved by reducing the length of stay of patients, or by adjusting the admission, and therefore, the operating room (OR) schedule. In this presentation, we focus on optimizing the OR schedule such that the number of required beds at the wards is minimized. The first step of our solution approach is to generate a specific number of surgery blocks. The blocks are generated by a column generation approach that maximizes the OR utilization and satisfy demand, surgeon, and instrument constraints. In addition, the probability on overtime is restricted. The second step of our solution approach is a simulated annealing procedure which assigns each block to an OR and day such that the maximum number of required beds is minimized. The solution approach is tested on data from the HagaZiekenhuis and the results show that OR utilization can be improved and the number of required beds can be decreased. Consequently, this will decrease costs, increase quality of care and level the workload on wards.