Community colleges have seen large increases in students enrolling in online courses nationally. This trend does not appear to be slowing down, in fact, the number of students enrolling in online courses is increasing. A number of these students come from disadvantaged backgrounds with community colleges being their first chance at a college education. This study attempted to isolate variables that can best predict a community college student’s chance of successful completion in the online environment. Ten variables were studied at one community college in Missouri (MOCC) during academic years 2010-2012. The variables were; College division, age, gender, academic semester, academic level, prior remediation, prior online course, grade point average, financial assistance, credit hours enrolled. The study used archived data with 9,540 individual cases. All variables except prior remediation showed significance. The predictive abilities of logistic regression showed that students with a GPA of 3.0 or higher, enrolled in a Career and Technology field of study, male, receiving financial aid, enrolled in 10.5 credit hours in the summer and an age of 30 were the most likely to successfully complete online courses at MOCC.