The purpose of this study was to examine the relationship between students’ motivation to learn and their expectations of the role of the instructor in an online course. 520 undergraduate students at a college of education who were enrolled in online asynchronous courses responded to a closed questionnaire that covered course topics, their motivation to learn, and their expectations of the instructors’ role. The findings of the study indicate that there are clear links between the components of students’ motivation and their expectations of the role of the instructor. A correlation analysis indicated a division of students into three types of motivation structures, which differ in terms of their expectations of the instructors’ role. Students with a ‘values belief’ construct (expressing intrinsic goal orientation, extrinsic goal orientation, and task value) expect instructors to fulfil pedagogical, technical, affective, and differentiating roles. Students with an ‘expectancy’ construct (expressing self-efficacy and control of learning beliefs) expect the instructors to fulfil pedagogical and differentiating roles. Students with an ‘affect’ construct (expressing test anxiety) expect the instructors to fulfil technical and affective roles. The results of the study indicate that students expect effective teaching processes that are appropriate and in accordance with their motivation to learn in an online course. It is important to consider these differences between students in the planning and preparing for the course.