EXTENDED SUMMARY

The Purpose of the Study
In today’s scientific age, prospective science teachers are expected to train their students in a way that will enable them to become scientifically literate individuals. To be able to do so, it is essential that prospective science teachers should be provided with decent education and be highly-motivated. An identification of their achievement goal orientations, an important indicator of motivation, is important in that it will enable any insufficient aspects to be overcome and their motivation towards learning to get increased. All things considered, the purpose of the present study is to identify prospective science teachers’ achievement goal orientations in reference to the variables grade, gender and voluntarily/involuntarily selection of the department.

The following research questions were posed:
1. What are prospective science teachers’ achievement goal orientations?
2. Do prospective science teachers’ achievement goal orientations differ depending on the variables grade, gender and voluntarily/involuntarily selection of the department?

Methodology
The present study was based on the survey model.

Population and Sample
The target population of the study was comprised of first, second, third and fourth grade prospective science teachers from the Faculty of Education, Kafkas University. An attempt was made to access the whole target population. Eventually, a total of 250 prospective teachers who filled in the questionnaire form properly were included in the study.

Data Collection Tools
The data were collected through the Achievement Goal Orientations Scale, which was developed by Midgley et al. (1998) and adapted to Turkish by Akin and Cetin (2007). The Achievement Goal Orientations Scale consisted of 17 items. The scale had three dimensions, namely learning orientation (items 1-6), performance-approach orientation (items 7-12), and performance-avoidance orientation (items 13-17). The rating was based on a five-point likert rating: “never (1)”, “rarely (2)”, “often (3)”, “generally (4)”, and “always (5)”. The Cronbach’s alpha coefficients were 0.77, 0.79 and 0.78 for learning orientation, performance-approach orientation, and performance-avoidance orientation respectively. In the present study, on the other hand, the coefficients were 0.84, 0.82 and 0.76 for earning orientation, performance-approach orientation, and performance-avoidance orientation respectively. The values suggest that the scale can properly reflect prospective teachers’ achievement goal orientations.

Conclusion and Discussion
The study concluded that most of the prospective science teachers had learning and performance-approach orientations whereas only a small proportion of them had performance-avoidance orientations. Similarly, in a study on prospective classroom, Turkish language and social sciences teachers, Arslan (2011) discovered that the participants had high learning and performance-approach orientations and low performance-avoidance orientations. It should be noted here that a review of literature reveals limited research on prospective teachers’ achievement goal orientations.

Another finding revealed by the present study is that there was not a difference between the participants in their achievement goal orientations depending on the variable grade. However, female prospective teachers had higher learning and performance-approach orientations whereas male prospective teachers had higher performance-avoidance orientations. The finding suggests that male students participate in learning activities mainly for the purpose of avoiding negative assessment. Similarly, Elliot and Church (1997) maintain that women are more learning oriented than men. Students with learning goal orientations are focused on developing their skills and improving their abilities. They mostly attach importance to hardworking, being patient and not avoiding of making efforts. They choose the tasks they want to work on and set standards in accordance with their expectations; in addition, they focus on understanding, developing skills, and specialization in their fields of interest (Ames,
1992; Meece, Blumenfeld and Hoyle, 1988; Kaplan and Maehr, 2007).

It was also observed that those students who had chosen the department voluntarily had higher learning orientations while those who had not chosen the department voluntarily had higher performance-avoidance orientations. In the first dimension, the great majority of the prospective teachers had learning orientations and performance-approach orientations whereas only a small proportion of the participants had performance-avoidance orientations. The fact that those students who had chosen the department voluntarily had high learning orientations, a type of orientation associated with a whole hearted eagerness to learn a given material or subject, indicates that such students attended the department consciously and wanted to achieve self-development in the discipline. According to Elliot and Harackiewicz (1996), learning goals promote intrinsic motivation while performance goals affect this type of motivation negatively. Those students who had not chosen the department voluntarily had higher performance-avoidance orientations, a type of orientation associated with participation in learning activities simple for the purpose of avoiding negative assessment. In other words, such students were less motivated since they had not chosen the department voluntarily.