This study utilised a prospective design in examining determinants of intrinsic motivation in a physical education teacher education course. At the outset of a one-term Olympic gymnastics module, students in the third year of a 4-year degree course completed questionnaires measuring their perceived autonomy and competence regarding the module. On completion of the module, students replied to questionnaires assessing their intrinsic motivation as well as their intentions to study a gymnastics course in the future. Structural equation modelling analysis showed that both perceived autonomy and competence had effects on intrinsic motivation, although the latter was indirect through performance. Further, intrinsic motivation had a strong effect on intention. This study shows the importance of creating perceptions of autonomy in student teachers when the promotion of intrinsic motivation is desired.